ORDER NO. VM0602005CE

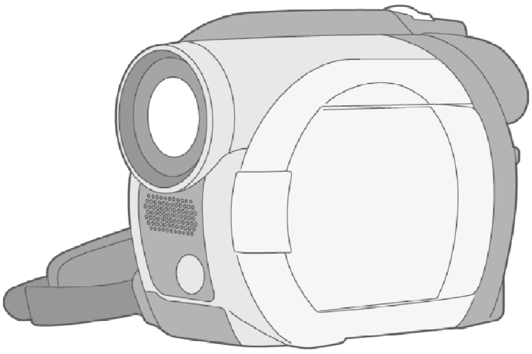
Service Manual

Digital Video Camcorder

VDR-D100PL / VDR-D200PL

Colours

(S)...................Silver Type



PbF
Solder Lead free

SPECIFICATIONS

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

1. Safety Precautions

1.1. General Guidelines

1. IMPORTANT SAFETY NOTICE
   There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer’s specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2. Warning

2.1. Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   CAUTION :

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

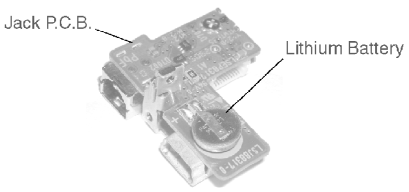
2.2. How to Recycle the Lithium Battery

U.S.A./CANADA CONSUMERS: ATTENTION:

A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

2.3. How to Replace the Lithium Battery

Remove the Jack P.C.B. (Refer to "Disassembly and Assembly Instructions.")
Unsolder the Lithium Battery "ML-621S/F9D" and then replace the new one.



Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

CAUTION - The battery used in this device may present a risk of fire or chemical burn if mistreated.
Do not recharge, disassemble, heat above 100 °C (212 °F), or incinerate.
Replace battery with Panasonic part number ML-621S/F9D only.
Use of another battery may present a risk of fire or explosion.
Dispose of used battery promptly. Keep away from children.
Do not disassemble and do not dispose of in fire.

NOTE:

This Lithium battery is a critical component. (Type No.: ML-621S/F9D Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

PRECAUTION

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.
Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning má kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

3. Service Navigation

3.1. Introduction

This service manual contains technical information which will allow service personnel's to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

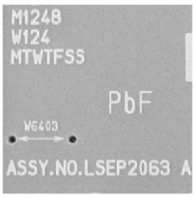
Note 1:

AC Adaptor used on these movie camera is PV-DAC14D. However, DE-974FA is supplied as a replacement part for PV-DAC14D. This AC Adaptor is supplied only as a unit.

3.2. About Lead Free Solder (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Printed case

CAUTION:

- **Pb free solder has a higher melting point than standard solder;**
  Typically the melting point is 50 °F - 70 °F (30 °C - 40 °C) higher.
  Please use a soldering iron with temperature control and adjust it to 700 °F±20 °F (370 °C± 10 °C).
  In case of using high temperature soldering iron, please be carefull not to heat too long.
- **Pb free solder will tend to splash when heated too high (about 1100 °F/600 °C).**
- **All products with the printed circuit board with PbF stamp or printing must be serviced with lead free solder.**
  When soldering or unsoldering, completely remove all of the solder from the pins or solder area, and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn96.5 Ag3.0 Cu0.5.

4. Specifications

ITEM	SPECIFICATION	1	2
Power	DVD Video Camera: Power Source: DC 7.9/7.2 V Power Consumption: 6.0W AC Adaptor: Power Source: AC 110-240 V, 50/60 Hz Power Consumption: 19 W DC Output: DC 7.9 V, 1.4 A (Unit Operation) DC 8.4 V, 0.65 A (Battery Charging)	○	○
Signal System	EIA Standard: 525 lines, 60 fields NTSC color signal	○	○
Recording Format	DVD Video Recording format (DVD-RAM, DVD-RW) DVD-Video format (DVD-RW, DVD-R)	○	○
Image Sensor	1/6-inch CCD image sensor Total pixels approx. 680 K Effective pixels Motion picture: approx. 340 K	○	○
Lens	30x power zoom F1.8–F3.9 (f = 1.90 mm to 57.0 mm, 35 mm equivalent: 35.7 mm to 1072 mm)	○	○
Filter Diameter	30.5 mm	○	○
Zoom	30x optical zoom, 50/1000x digital zoom	○	○
Monitor	2.5" LCD monitor (approx. 105 K pixels)	○	○
Viewfinder	Color electric viewfinder (approx. 123 K pixels)	○	○
Microphone	Stereo (with a zoom function)	○	○
Speaker	1 round speaker ϕ20 mm	○	○
Standard Illumination	1,400 lx	○	○
Minimum Required Illumination	12 lx (2 lx in MagicPix mode)	○	○
Video Output Level	1.0 Vp-p 75 ohm	○	○
S-Video Output Level	Y: 1.0 Vp-p, 75 ohm C: 0.286 Vp-p, 75 ohm	○	○
Audio Output Level (Line)	316 mV, 600 ohm	○	○
USB	Card reader/writer function (No copyright protection support) USB 2.0 compliant (Hi-Speed) PictBridge-compliant	— ○ —	○ ○ ○
Motion Pictures	Recording Media: 8 cm (3") DVD-RAM Ver. 2.1 8 cm (3") DVD-RW Ver. 1.1/2X-SPEED (2X/1X) 8 cm (3") DVD-R for General Ver. 2.0 Compression: MPEG2 Recording Mode and Transfer Rate: XP: 9 Mbps (VBR) SP: 5 Mbps (VBR) LP: 2.5 Mbps (VBR) Audio Compression: Dolby Digital (Dolby AC3), 16 bit (48 kHz/2 ch)	○	○
Still Pictures	Recording Media: SD Memory Card (8 MB/16 MB/32 MB/64 MB/128 MB/256 MB/512 MB/ 1 GB/2 GB (Maximum)) Compression: JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding Picture Size: 640x 480	—	○
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)	○	○
Operating Humidity	10% to 80%	○	○
Weight	DVD Video Camera: 0.48 kg (1.058 lbs.) (without supplied Battery, Lens Cap and a Disc) AC Adaptor: 0.11 kg (0.24 lbs.)	○	○
Dimensions	DVD Video Camera: 53 mm x 87 mm x 129 mm (W x H x D) (2.087 inch x 3.425 inch x 5.079 inch) (W x H x D) (excluding projecting parts) AC Adaptor: 61 mm x 32 mm x 91 mm (W x H x D) (2.40 inch x 1.26 inch x 3.58 inch) (W x H x D)	○	○
Solder	**This model uses lead free solder (PbF).**	○	○

1. VDR-D100PL
2. VDR-D200PL

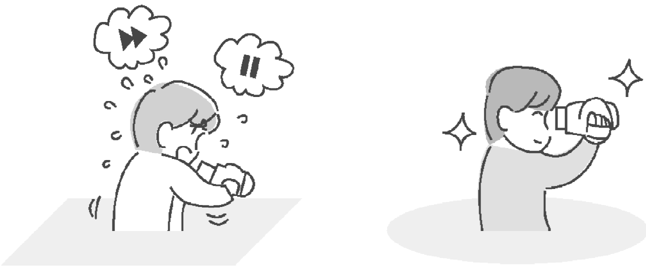
Weight and dimensions shown are approximate.
Designs and specifications are subject to change without notice.

5. Location of Controls and Components

Features

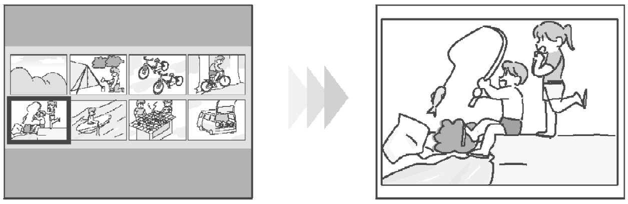
■ Easy recording! (➜ 43)

No need to search for the recording start position.
The new recording will not overwrite any previously recorded scene.



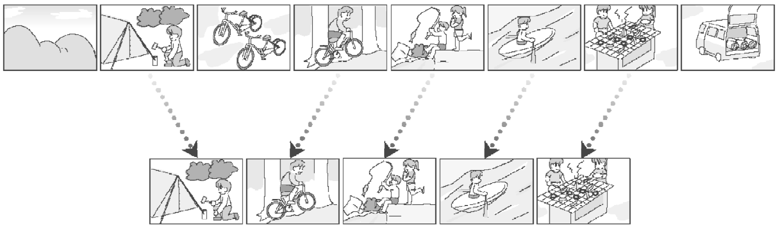
■ Easy playback! (➜ 64)

Recorded scenes are displayed as thumbnails.
You can easily search for the scenes you want to watch.



■ Editing scenes! (➜ 69, 73)

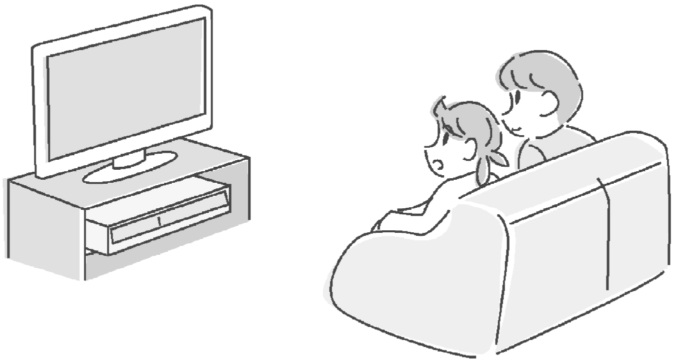
You can create an original video (playlist) by collecting your favorite scenes together and then easily record (dub) this video to a VCR or a DVD recorder hard disk.



■ Using with DVD player/recorder! (➜ 93)

Just insert the disc into a DVD player/recorder compatible with 8 cm (3″) discs to play back the scenes recorded with this unit on it.

If you have a DVD recorder with hard disk, you can copy (dub) scenes recorded on a disc with this unit to the hard disk.



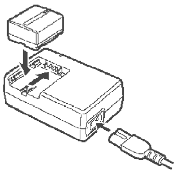
■ Using with a computer! (➜ 98)

You can enjoy editing scenes with the software on the supplied CD-ROM and creating original DVD-Video discs.

Quick Guide

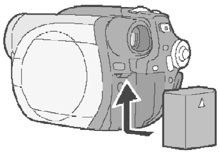
■ Charging the battery

1. Connect the AC cable to the AC adaptor and the AC outlet.
2. Put the battery on the battery mount by aligning the mark, and then securely plug it in.



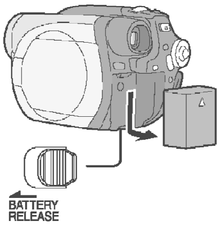
■ Fitting the battery

Push the battery against the battery holder and slide it until it clicks.



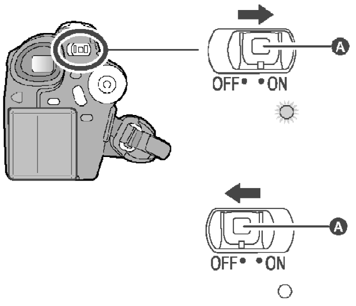
■ Removing the battery

While sliding the BATTERY RELEASE lever, slide the battery to remove it.



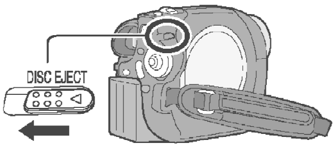
■ How to turn on/off the power

While pressing the button Ⓐ, set the OFF/ON switch to ON/OFF.

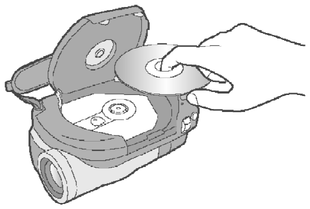


■ Inserting/removing a disc

1. Slide the DISC EJECT lever once and release it.



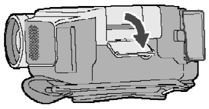
2. Open the cover of the disc compartment by hand and insert/remove the disc.



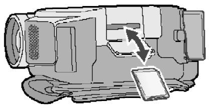
3. Push the section marked "PUSH CLOSE" on the cover of the disc compartment to close the cover.

Inserting/removing an SD card (VDR-D200 only)

1 **Open the card slot cover.**



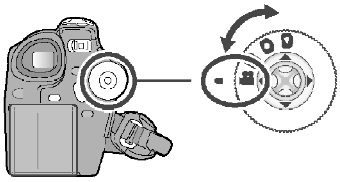
2 **Insert/remove the SD card into/from the card slot.**



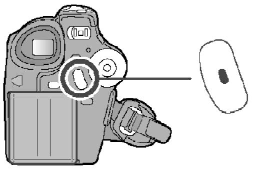
3 **Securely close the card slot cover.**

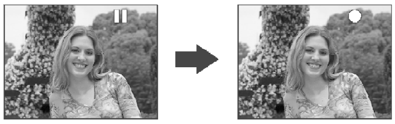
Recording motion pictures

- Rotate the mode dial to select 🎥.

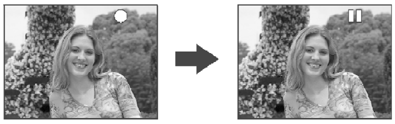


1 **Press the recording start/stop button to start recording.**



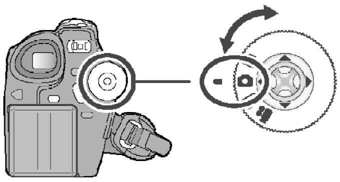


2 **Press the recording start/stop button again to pause recording.**

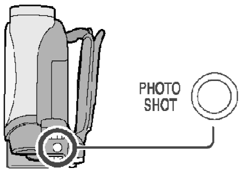


Recording still pictures (VDR-D200 only)

- Rotate the mode dial to select 📷.

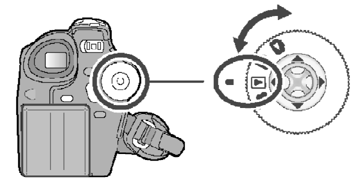


Press the PHOTO SHOT button.

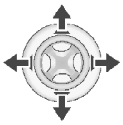


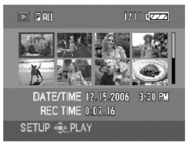
■ Motion picture playback

- Rotate the mode dial to select ▶.



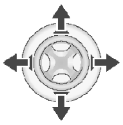
1 Select the scene to be played back.

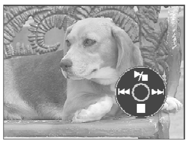



1/11
DATE/TIME 12.15.2006 3:30 PM
REC TIME 0:07:16
SETUP PLAY

2 Press the joystick.

3 Move the joystick to operate.

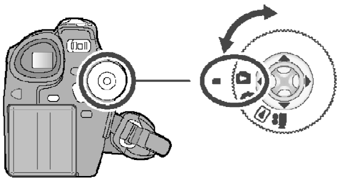




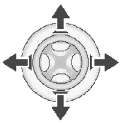
▶/❚❚: Playback/Pause
⏮ (Move): Skip playback (backward)
⏮ (Move and hold): Review playback
⏭ (Move): Skip playback (forward)
⏭ (Move and hold): Cue playback
■: Stops the playback and shows the thumbnails.

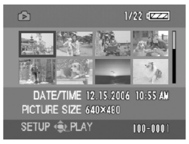
■ Still picture playback (VDR-D200 only)

- Rotate the mode dial to select 📷.



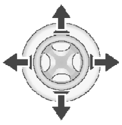
1 Select the file to be played back.

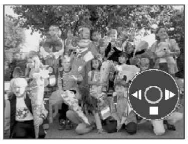



1/22
DATE/TIME 12.15.2006 10:55 AM
PICTURE SIZE 640×480
SETUP PLAY
100-0001

2 Press the joystick.

3 Move the joystick to operate.



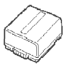


▶/❚❚: Slide show start/pause.
◀❙: Plays back the previous picture.
❙▶: Plays back the next picture.
■: Stops the playback and shows the thumbnails.

Accessories

Check the accessories before using this unit.

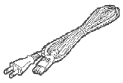
Battery pack
CGA-DU12



AC adaptor
PV-DAC14D

DC cable
K2GJ2DC00011 or
K2GJ2DC00015

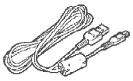
AC cable
K2CA2CA00029 or
K2CA2CA00025



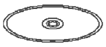
AV/S cable
K2KZ9CB00001

Shoulder strap
VFC3506-1A

USB cable
K1HA05CD0014 or
K1HA05CD0013



CD-ROM
LSFT0643



Disc cleaning cloth
VFC3778-2

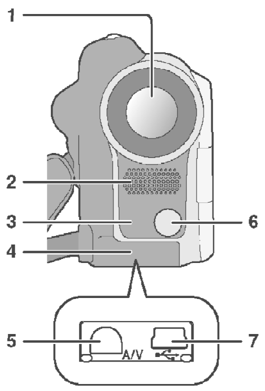
CAUTION:
This unit will operate on 110/120/220/240 V AC. An AC plug adaptor may be required for voltages other than 120 V AC. Please contact either a local or foreign electrical parts distributor for assistance in selecting an alternate AC plug. We recommend using the accessory power plug adaptor (VJSS0070) in an area which has special AC outlets.

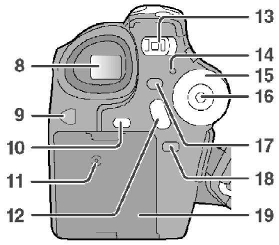
Parts identification and handling

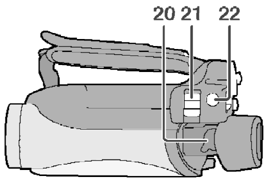
1. **Lens**
2. **Microphone (built-in, stereo)**
3. **White balance sensor (→ 62)**
4. **Terminal cover**
5. **Audio-video output terminal [A/V] (→ 92, 95)**
6. **Video light (VDR-D200 only) (→ 57)**
7. **USB terminal [⇠] (→ 96, 110, 124)**
8. **Viewfinder (→ 18, 41)**

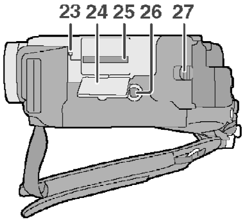
> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the viewfinder screen. However, this is not a malfunction and does not affect the recorded picture.

9. **LCD monitor open button [PUSH OPEN] (→ 18)**
10. **Video light button [LIGHT] (VDR-D200 only) (→ 57)**
11. **DC input terminal [DC/C.C. IN] (→ 26)**
12. **Recording start/stop button (→ 43)**
13. **Power switch [OFF/ON] (→ 27)**
14. **Status indicator (→ 27)**
15. **Mode dial (→ 31)**
16. **Joystick (→ 32)**
    - Move up, down, left or right to select items.
    - Press the center to enter the selection.
17. **Delete button [🗑] (→ 69, 80, 82)**
18. **Menu button [MENU] (→ 37)**
19. **Battery holder (→ 24)**
20. **Eyepiece corrector knob (→ 41)**
21. **Zoom lever [W/T] (→ 48)**
    Volume lever [−VOLUME+] (→ 65)
22. **Photoshot button [PHOTO SHOT] (VDR-D200 only) (→ 46)**
23. **Card access lamp (VDR-D200 only) (→ 30)**
24. **Card slot cover (VDR-D200 only) (→ 30)**
25. **Card slot (VDR-D200 only) (→ 30)**
26. **Tripod receptacle (→ 17)**
27. **Battery release lever [BATTERY RELEASE] (→ 24)**





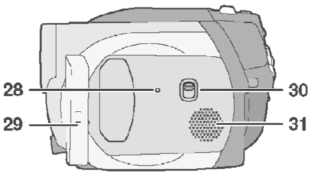




28 Reset button [RESET] (➜ 142)

29 LCD monitor (➜ 18)

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD monitor screen. However, this is not a malfunction and does not affect the recorded picture.



30 Mode select switch [AUTO/MANUAL/FOCUS] (➜ 58)

31 Speaker

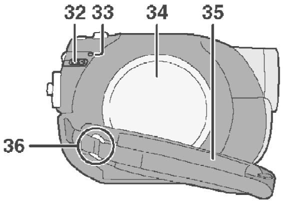
32 Disc eject lever [DISC EJECT] (➜ 28)

33 Disc/computer access lamp [ACCESS/PC] (➜ 28, 111, 126)

34 Disc compartment (➜ 28)

35 Grip belt (➜ below)

36 Shoulder strap fixture (➜ below)

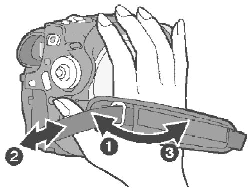


Using grip belt

Adjust the belt length so it fits your hand.

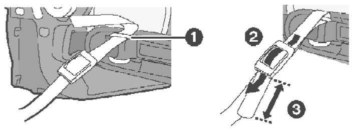
Adjust the belt length and the pad position.

❶ Flip the belt.
❷ Adjust the length.
❸ Fix the belt.

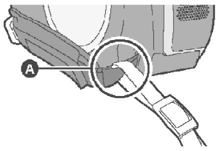


Shoulder strap fixture

Put the strap through the fixture ❶ and through the stopper ❷ so it will not come off. Extend part ❸ by at least 2 cm (1″).



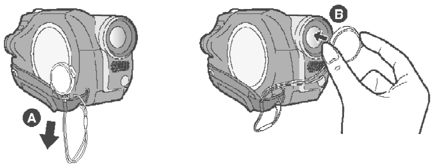
- Put the opposite end of the strap through Ⓐ and attach it in the same way.



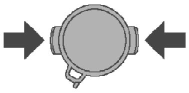
Fitting the lens cap

Fit the lens cap to protect the surface of the lens.
The lens cap and lens cap cord comes preattached to the grip belt.

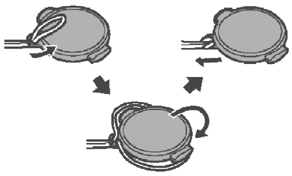
- When not using the lens cap, pull the lens cap cord in the direction of the arrow. Ⓐ
- When you are not recording, be sure to cover the lens with the lens cap for protection. Ⓑ



- When you remove the lens cap, press the knobs firmly.



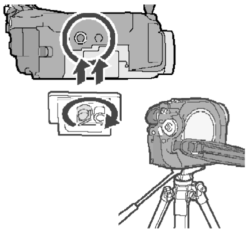
- If the lens cap cord has come off
  Pass the end of the lens cap cord through the attached eye on the lens cap. Then pass the lens cap through the loop made by itself and pull tight.



Tripod receptacle

This is a hole for attaching the unit to the optional tripod. (Please carefully read the operating instructions for how to attach the tripod to the unit.)

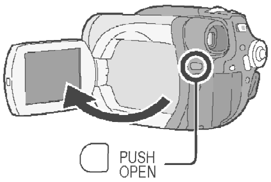
- When the tripod is used, the card slot cover cannot be opened. Insert an SD card before attaching this unit to the tripod. (➜ 30)



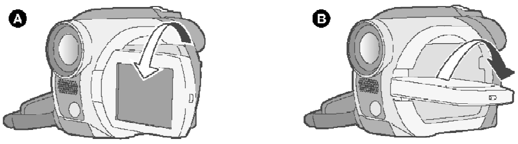
Using the LCD monitor

You can record the image while viewing it on the LCD monitor.

1 Press the PUSH OPEN button. The LCD monitor opens slightly. Pull the LCD monitor out in the direction of the arrow.
- The viewfinder is now deactivated.
- It can open up to 90°.



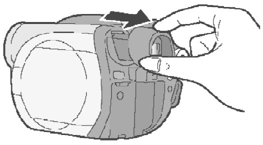
2 Adjust the angle of the LCD monitor according to your preference.
- It can rotate up to 180° Ⓐ towards the lens or 90° Ⓑ towards the viewfinder.



- The brightness and color level of the LCD monitor can be adjusted from the menu. (➜ 41)
- If it is forcibly opened or rotated, the unit may be damaged or fail.
- When the LCD monitor is rotated by 180° towards the lens (when recording yourself), the LCD monitor and the viewfinder will be simultaneously activated.

Using the viewfinder

Pull out the viewfinder.
(➜ 41, Adjusting viewfinder)



Discs and cards

Discs that can be used on this unit

Disc type	**DVD-RAM** 8 cm (3″) Single sided/ double sided	**DVD-RW** 8 cm (3″) Single sided/double sided		**DVD-R** 8 cm (3″) Single sided/ double sided
	DVD RAM RAM4.7 (DVD-RAM Ver. 2.1)	DVD RW 2X/1X [DVD-RW Ver. 1.1/ 2X-SPEED (2X/1X)]		DVD R R4.7 (DVD-R for General Ver. 2.0)
Recording format	DVD Video Recording format (VR format)	DVD Video Recording format (VR format)	DVD-Video format (Video format)	DVD-Video format (Video format)
Characteristic	Rewritable disc	Rewritable disc	One time recording disc[1]	One time recording disc
Display on the screen	RAM	VR -RW	Video -RW	-R
Indication in these instructions	RAM	-RW(VR)	-RW(V)	-R
Functions				
• Editing on this unit	●	●	–	–
• Playback on other products[2]	●[3]	●[4]	●[5]	●[5]
• Recording after finalizing	–	●	●[6]	–

●: available –: not available

[1] By formatting the disc, it can be used repeatedly. (→ 86)
[2] DVD players and DVD recorders that support 8 cm (3″) discs.
[3] Playback is possible on compatible products.
[4] Playback is possible on compatible products. (May have to be finalized on this unit.)
[5] Must be finalized on this unit. (→ 88)
[6] Un-finalize the disc. (→ 89)

Discs and cards

- **Still pictures cannot be recorded on a disc with this unit.**
- When using double sided disc, you cannot record or play continuously from one side of the disc to the other. You will need to eject the disc and turn it over.
- Discs inserted in a holder, cartridge, or caddy case cannot be used. Always remove bare discs from these containers prior to use.
- It is recommended that you use Panasonic discs. Usually discs compatible with the DVD standard can be used for recording and playback with no problems. However, some commercially available discs do not meet the DVD standard for quality and performance. If you use one of these discs, you may not be able to record or playback normally. (The message "RECOMMENDED TO USE PANASONIC DISC" appears.) Refer to the following support site for information about discs that have been confirmed as compatible by Panasonic.
  http://panasonic.co.jp/pavc/global/cs/e_cam (This website is in English only.)
- Discs recorded on this unit may not be playable on other products.
- Recording on DVD-R in DVD Video Recording format is not supported.
- When using DVD-RW or DVD-R, do not perform the following, as doing so may make the disc unusable.
  – Record on a disc with other products after recording on it with this unit.
  – Record on a disc with this unit after recording on it with other products.
  – Insert an un-finalized disc in any other products.

■ About format types

What is the DVD Video Recording format (VR format)?	**What is the DVD-Video format (Video format)?**
This is a format for recording on DVD discs which allows you to record and erase repeatedly and create playlists. You can record on DVD-RAM and DVD-RW in DVD Video Recording format with this unit.	By finalizing the disc, it can be played back on most DVD players. You can record on DVD-RW and DVD-R in DVD-Video format with this unit.

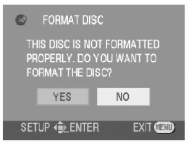
■ Examples of discs that cannot be used on this unit

- DVD-RAM (2.6 GB) Ver. 1.0
- DVD-R (3.9 GB) Ver. 1.0
- DVD-R (4.7 GB) for Authoring Ver. 2.0
- +RW
- +R
- DVD-R DL
- Discs other than those with diameter of 8 cm (3″)
- Dual/double layer discs
- DVD-ROM
- DVD-Video
- CD-R
- CD-RW
- CD
- LD
- MO
- MD
- iD
- Floppy disk
- CD-ROM

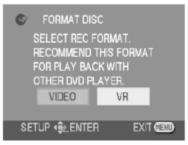
When using brand-new DVD-RW

When using DVD-RW, select whether to record in DVD Video Recording format (VR format) or DVD-Video format (Video format) and then format the disc. (➜ 20, About format types)

1 When a brand-new DVD-RW is inserted in this unit, the screen on the right appears. Select [YES], then press the joystick.


FORMAT DISC
THIS DISC IS NOT FORMATTED PROPERLY. DO YOU WANT TO FORMAT THE DISC?

2 Select format type, then press the joystick.
VIDEO: DVD-Video format
VR: DVD Video Recording format


FORMAT DISC
SELECT REC FORMAT. RECOMMEND THIS FORMAT FOR PLAY BACK WITH OTHER DVD PLAYER.

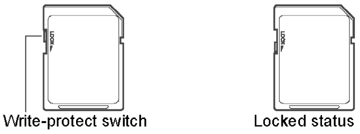
3 When the confirm screen appears, select [YES], then press the joystick.

- To change the format type, format the disc again. (➜ 86)
  If the disc is formatted, then all the data recorded on the disc will be erased.

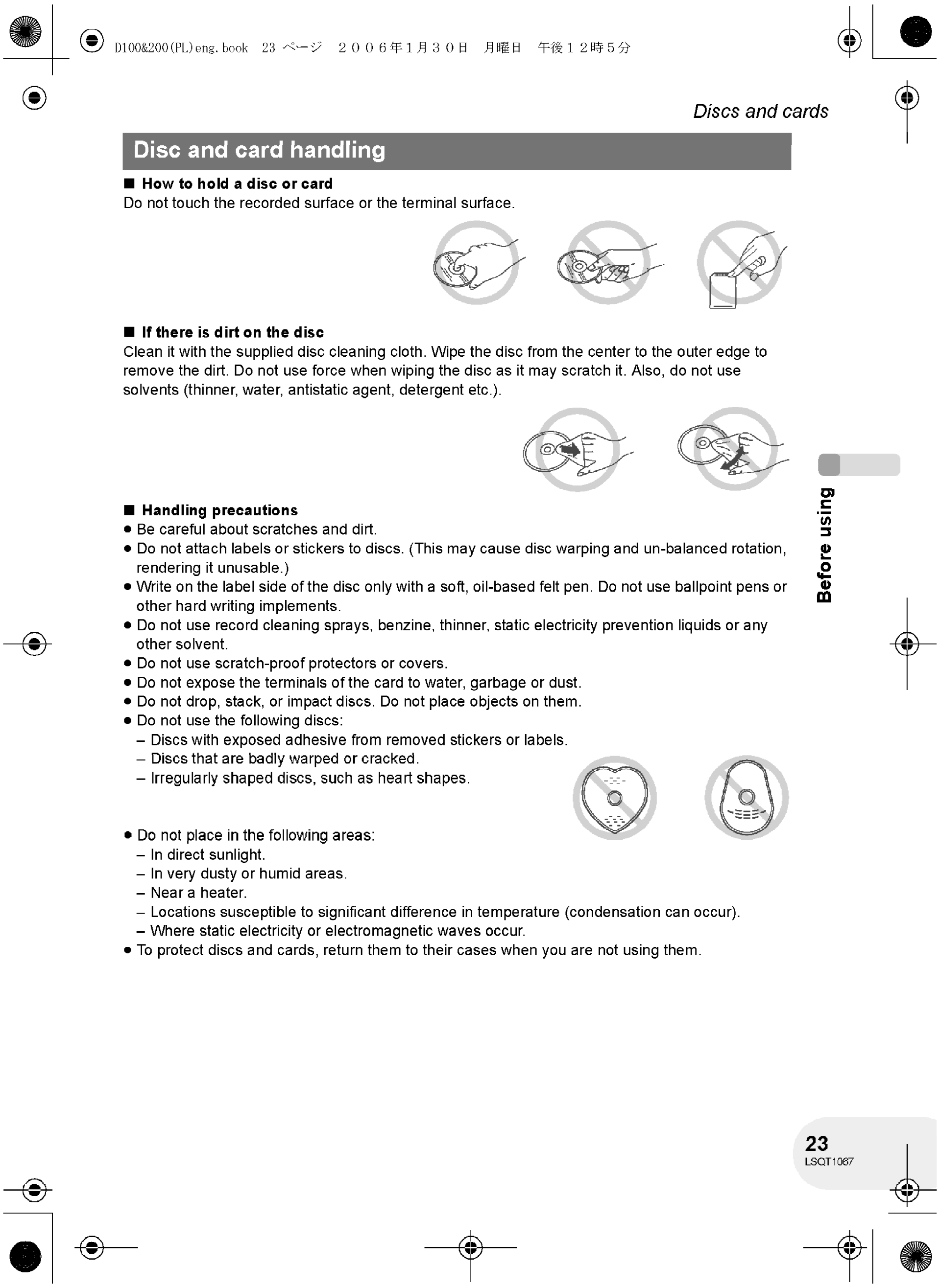
Cards that you can use with this unit (VDR-D200 only)

Card type	**SD Memory Card**	**miniSD™ Card**
Capacity	8 MB, 16 MB, 32 MB, 64 MB, 128 MB, 256 MB, 512 MB, 1 GB, 2 GB (Maximum)	32 MB, 64 MB, 128 MB, 256 MB, 512 MB
Indication in these instructions	SD	

- **Motion pictures cannot be recorded on an SD card with this unit.**
- Please confirm the latest information on the following website. (This website is in English only.) **http://panasonic.co.jp/pavc/global/cs/e_cam**
- For the purposes of these operating instructions, SD Memory Card and miniSD™ Card are referred to as the "SD card".
- This unit supports SD cards formatted in FAT12 system and FAT16 system based on SD Memory Card Specifications.
- Use this unit to format SD cards. If an SD card is formatted on other products (such as a computer), the time spent for recording may become longer and you may not be able to use the SD card. (➜ 87)
- We recommend that you use a Panasonic brand SD card.
- Be sure to insert miniSD™ Cards in the dedicated card adaptor before use. Inserting a card in this unit without the adaptor may damage the unit or the card.
- Do not insert an empty card adaptor in this unit. Do not leave the adaptor in this unit while inserting or removing miniSD™ Cards. This may cause the unit to malfunction.
- When the write-protect switch on SD Memory Card is locked, no recording, deletion or editing will be possible on the card.



- Keep the memory card out of reach of children to prevent swallowing.
- MultiMediaCards cannot be used on this unit.



Disc and card handling

■ How to hold a disc or card

Do not touch the recorded surface or the terminal surface.

■ If there is dirt on the disc

Clean it with the supplied disc cleaning cloth. Wipe the disc from the center to the outer edge to remove the dirt. Do not use force when wiping the disc as it may scratch it. Also, do not use solvents (thinner, water, antistatic agent, detergent etc.).

■ Handling precautions

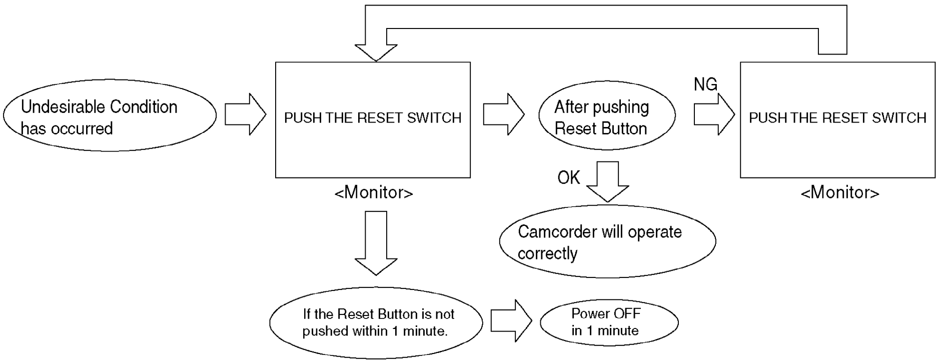
- Be careful about scratches and dirt.
- Do not attach labels or stickers to discs. (This may cause disc warping and un-balanced rotation, rendering it unusable.)
- Write on the label side of the disc only with a soft, oil-based felt pen. Do not use ballpoint pens or other hard writing implements.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not expose the terminals of the card to water, garbage or dust.
- Do not drop, stack, or impact discs. Do not place objects on them.
- Do not use the following discs:
  - Discs with exposed adhesive from removed stickers or labels.
  - Discs that are badly warped or cracked.
  - Irregularly shaped discs, such as heart shapes.
- Do not place in the following areas:
  - In direct sunlight.
  - In very dusty or humid areas.
  - Near a heater.
  - Locations susceptible to significant difference in temperature (condensation can occur).
  - Where static electricity or electromagnetic waves occur.
- To protect discs and cards, return them to their cases when you are not using them.

6. Service Mode

6.1. Error Display

"PUSH THE RESET SWITCH" is displayed automatically on the EVF or the LCD Monitor when an undesirable condition has occurred.

Fig. 1


Undesirable Condition has occurred
PUSH THE RESET SWITCH
<Monitor>
After pushing Reset Button
NG
PUSH THE RESET SWITCH
<Monitor>
OK
Camcorder will operate correctly
If the Reset Button is not pushed within 1 minute.
Power OFF in 1 minute

Note:

When "PUSH THE RESET SWITCH" is displayed repeatedly, service is required. Check the Error Code which is listed in the Service Menu.

6.2. Service Menu

When abnormal detection contents are confirmed, do the following operation. Automatic diagnosis code will bedisplayed. (Service Menu)

To enter the Service Menu

Push the [DELETE], [JOYSTICK CONTROL LEFT] and [RECORDING START/STOP] simultaneously for 3 seconds (with no SD Card inserted).

Note:

If a Disc or SD Card is inserted, the above operation will not work. This operation displays the following Service Menu items.

To select the Item

1. **Set to Service Menu.**
2. **Press the [JOYSTICK CONTROL UP/DOWN] to select item [1], [2], [3], [4] or [5].**
3. **Press the [JOYSTICK CONTROL RIGHT] to display [YES/NO] screen.**
4. **Press the [JOYSTICK CONTROL UP/DOWN] to select [YES].**
5. **Press the [JOYSTICK CONTROL CENTER].**

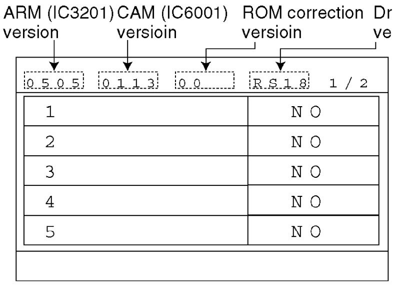
Note:

Only perform items 1, 2, 3, 4 and 5 in the Service Menu.

To exit the Service Menu

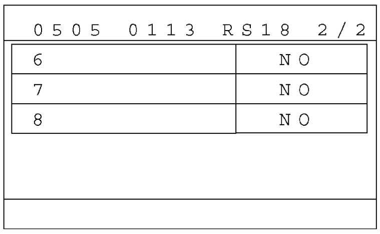
Unplug the AC Cord.

Fig. 2



```
0505  0113  00  RS18  1/2
1                 NO
2                 NO
3                 NO
4                 NO
5                 NO
```

<Service Menu 1/2>

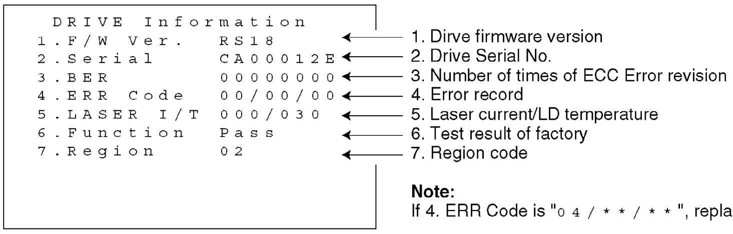


```
0505  0113  RS18  2/2
6                 NO
7                 NO
8                 NO
```

<Service Menu 2/2>

Item [1]: Factory setting (reset)
Item [2]: Drive information
Item [3]: Reset the total elapsed power on time
Item [4]: LD temperature information
Item [5]: Error/Lock Code/elapsed time

Item [6]: AD 24ch data
Item [7]: Life Mode
Item [8]: Not used
} **ignore**

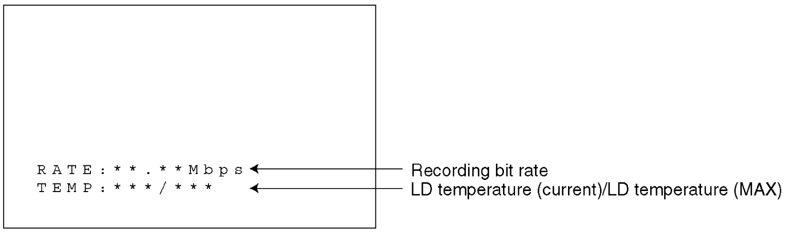


```
  DRIVE Information
 1.F/W Ver.     RS18
 2.Serial       CA00012E
 3.BER          00000000
 4.ERR Code     00/00/00
 5.LASER I/T    000/030
 6.Function     Pass
 7.Region       02
```

1. Dirve firmware version
2. Drive Serial No.
3. Number of times of ECC Error revision
4. Error record
5. Laser current/LD temperature
6. Test result of factory
7. Region code

<Itme [2] screen>

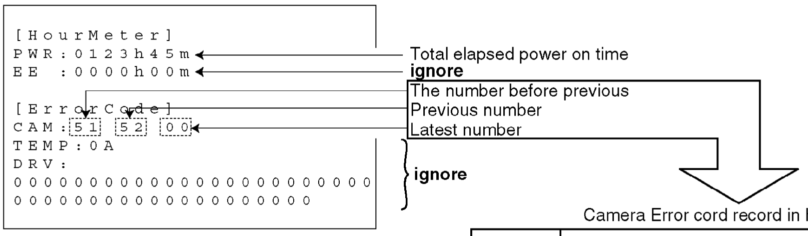
Note:
If 4. ERR Code is "04/**/**", replace the DVD Drive Frame Unit.



```
 RATE:**.**Mbps
 TEMP:***/***
```

Recording bit rate
LD temperature (current)/LD temperature (MAX)

<Itme [4] screen>



```
[HourMeter]
PWR:0123h45m
EE  :0000h00m

[ErrorCode]
CAM:51 52 00
TEMP:0A
DRV:
000000000000000000000000
00000000000000000000
```

Total elapsed power on time
ignore
The number before previous
Previous number
Latest number
ignore

<Itme [5] screen>

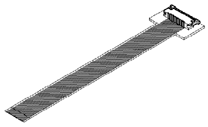
Camera Error cord record in hexidecimal

Display	Explanation of cause
00	No error
51	Zoom Motor Lock
52	Focus Motor Lock

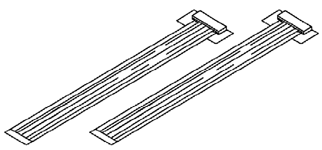
7. Service Fixture & Tools

7.1. Service Fixture and Tools

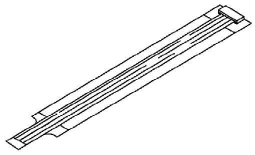
Extension Cable 20P **LSUA0020**



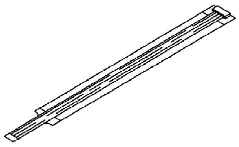
Extension Cable 22P (2 pcs) **VUVS0012**



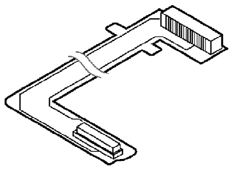
Extension Cable 14P **VFKW0124A**



Extension Cable 12P **VUVS0007**

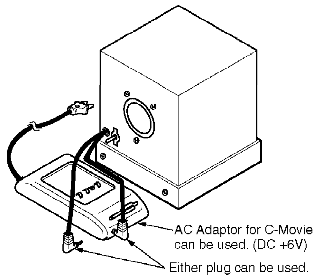


Extension Cable 60P **LSUA0059**



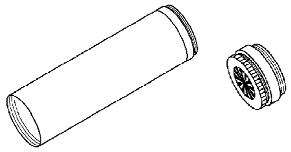
Plier for Non ZIF Connector **LSVQ0028**

Light Box and AC Adaptor **VFK1164LBX1**

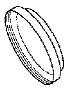


(AC Adaptor is not supplied)

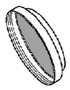
Infinity Lens (with Focus Chart) **VFK1164TCM02**



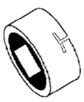
27mm Ring **VFK1164TAR27**



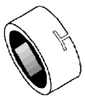
Color Conversion Filter (C14) **VFK1164TFCT2**



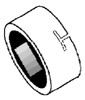
White Chart **VFK1164TFWC2**



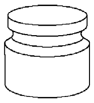
Color Bar Chart **VFK1164TFCB2**



Gray Scale Chart **VFK1164TFGS2**



Grease **LSUQ0050**



7.2. Service Position

7.2.1. Extension Cables for Service Position

Using the following Extension Cables, place the unit as shown for check and service.

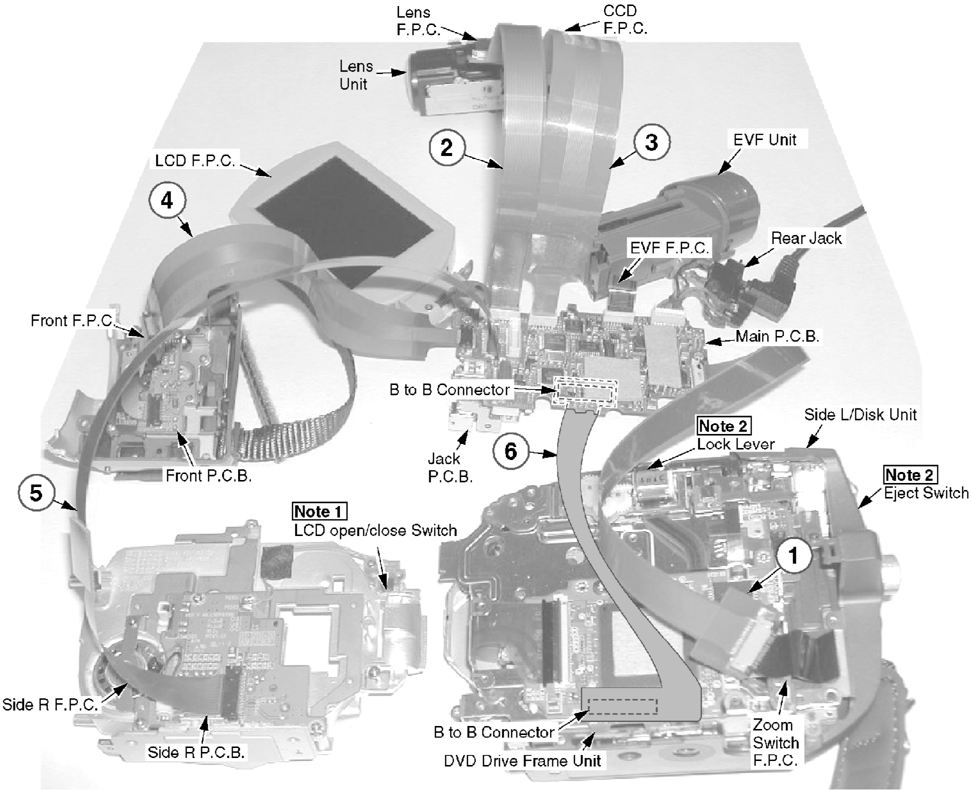
NO.	PART NUMBER	PART NAME	CONNECTION
①	LSUA0020	20Pin Extension Cable	FP3 on Main P.C.B. ~ Zoom Switch F.P.C. of Side L/Disk Unit
②	VUVS0012	22Pin Extension Cable	FP701 on Main P.C.B. ~ Lens F.P.C. on Lens Unit
③	VFKW0124A	14Pin Extension Cable	FP301 on Main P.C.B. ~ CCD F.P.C. on Lens Unit
④	VUVS0007	12Pin Extension Cable	FP2 on Main P.C.B. ~ Front F.P.C. of Front P.C.B.
⑤	VUVS0012	22Pin Extension Cable	FP1 on Main P.C.B. ~ Side R F.P.C. of Side R P.C.B.
⑥	LSUA0059	60Pin Extension Cable	B1 on Main P.C.B. ~ Connector of DVD Drive Frame Unit

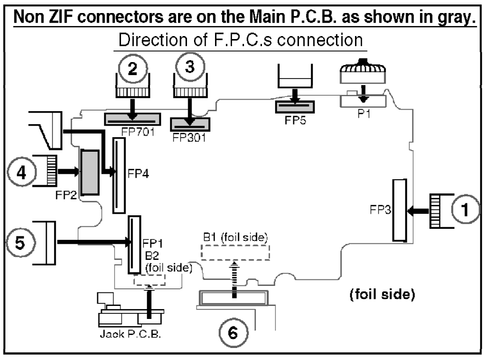
Note :

1. **The LCD open/close Switch is for changing between LCD Display or EVF Display. When turning on EVF Display, place some paper or tape, etc. on LCD open/close Switch so that this Switch stays ON.**

2. **To eject the DVD manually, slide the Lock lever on the Disc Cover Lock Unit for a short time.**
3. **Use a grounded ESD wrist strap while disassembling the Lens portion.**
4. **Connect the F.P.C.s to the connectors, verifying the direction of F.P.C.s as shown.**
5. **Use extreme care when plugging in or unplugging connectors.**

Fig. 3


Lens F.P.C.
CCD F.P.C.
Lens Unit
LCD F.P.C.
②
③
EVF Unit
④
EVF F.P.C.
Rear Jack
Front F.P.C.
Main P.C.B.
B to B Connector
Side L/Disk Unit
Note 2
Lock Lever
Jack P.C.B.
⑥
Note 2
Eject Switch
Front P.C.B.
⑤
Note 1
LCD open/close Switch
①
Side R F.P.C.
Side R P.C.B.
B to B Connector
DVD Drive Frame Unit
Zoom Switch F.P.C.


Non ZIF connectors are on the Main P.C.B. as shown in gray.
Direction of F.P.C.s connection
②
③
FP701
FP301
FP5
P1
④
FP2
FP4
⑤
FP1
B2 (foil side)
B1 (foil side)
FP3
①
(foil side)
Jack P.C.B.
⑥

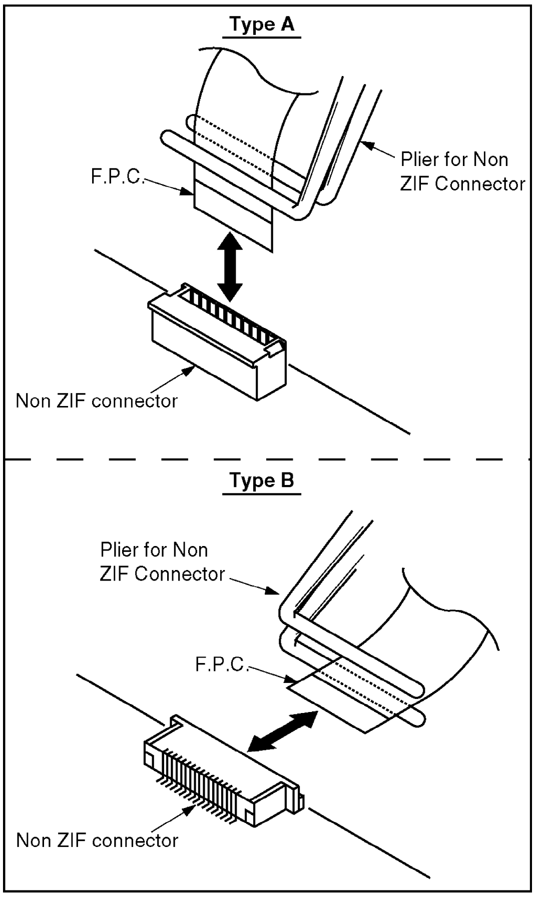
7.3. Removal/Installation of F.P.C. From Non ZIF (Zero Insertion

Force) Connector

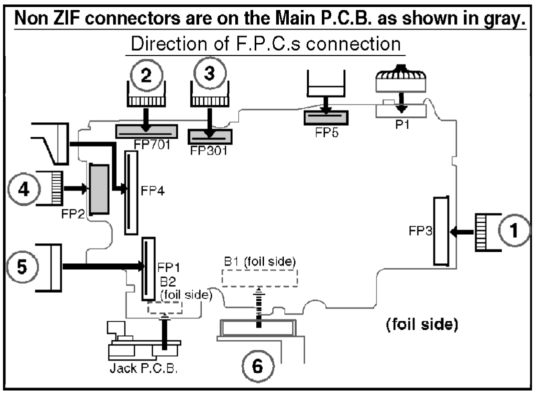
Removal/Installation of F.P.C. from the Non ZIF (Zero Insertion Force) connector:

1. **The Non ZIF connectors and the ZIF connectors are used on the unit. And there are 2 types (Type A, Type B) of Non ZIF connectors.**
2. **To remove the F.P.C. from the Non ZIF connector, use the Plier for Non ZIF Connector (LSVQ0028) to pull out the F.P.C. as shown. The same Plier for Non ZIF Connector (LSVQ0028) should also be used to install the F.P.C. to the Non ZIF Connector.**

Fig. 4-1


Type A
F.P.C.
Plier for Non
ZIF Connector
Non ZIF connector
Type B
Plier for Non
ZIF Connector
F.P.C.
Non ZIF connector

3. **Connect the F.P.C.s to the Non ZIF connectors, verifying the direction of F.P.C as shown.**

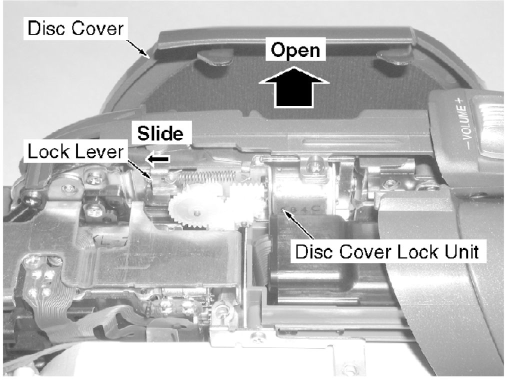

Non ZIF connectors are on the Main P.C.B. as shown in gray.
Direction of F.P.C.s connection
2
3
FP701
FP301
FP5
P1
4
FP2
FP4
FP3
1
5
FP1
B2
(foil side)
B1 (foil side)
(foil side)
Jack P.C.B.
6

7.4. Method for Ejecting the DVD Tray Manually

Perform the following procedures;

1. **Remove the 6 Screws, and remove the Top Cover Unit. (Refer to "Disassembly and Assembly Instructions.")**
2. **Slide the Lock Lever to open the Disc Cover.**
3. **Remove the Disc.**

Fig. 5


Disc Cover
Open
Slide
Lock Lever
Disc Cover Lock Unit
– VOLUME +

7.5. EEPROM Data

CAUTION:

Be sure to save the EEPROM data using PC-EVR Adjustment Program before service and adjustment in order to make sure to avoid an accidental data loss, etc. using PC-EVR Adjustment Program by first.

EEPROM IC

C.B.A.	EEPROM IC Ref. No.
Main C.B.A.	IC6004

7.6. Replacement Procedures for CSP (Chip Size Package) IC

7.6.1. EQUIPMENT

1. **Pre-Heater**
2. **Spot Heater**
3. **Vacuum Pick-up**
4. **P.C.B. Holder**

Fig. 8-1

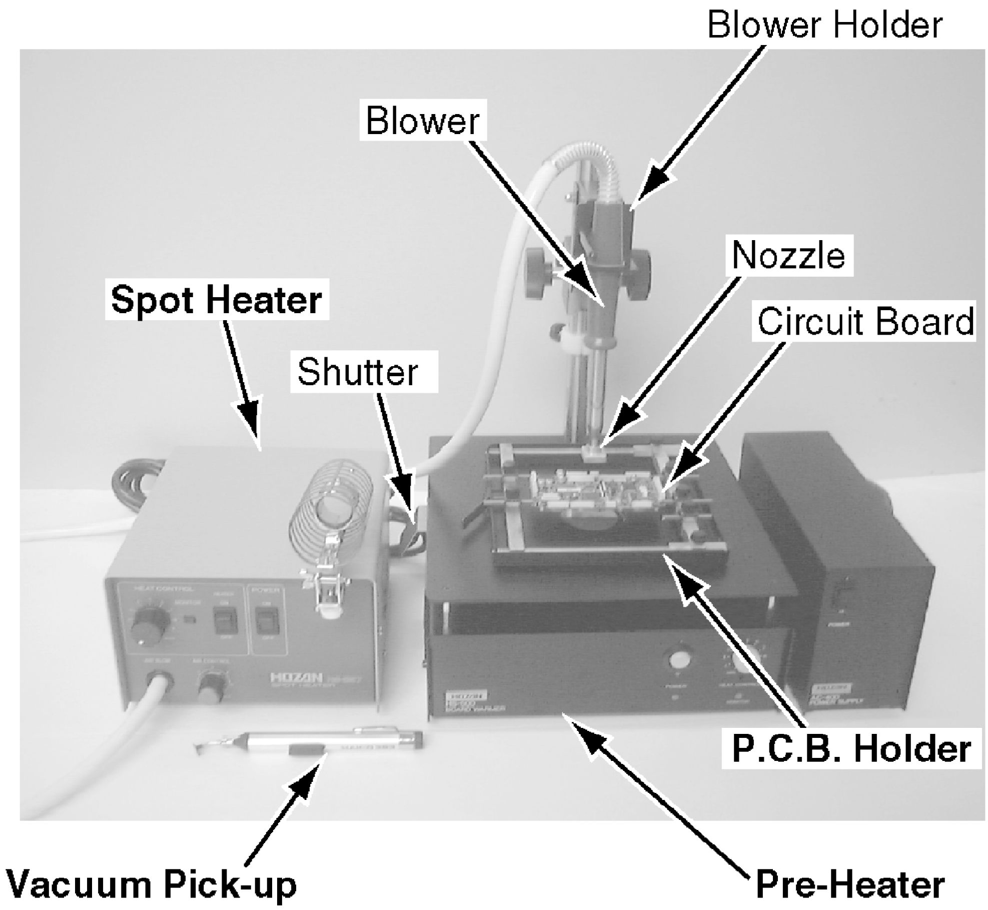
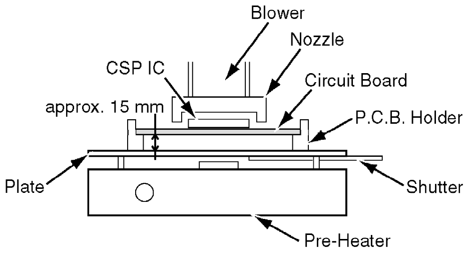
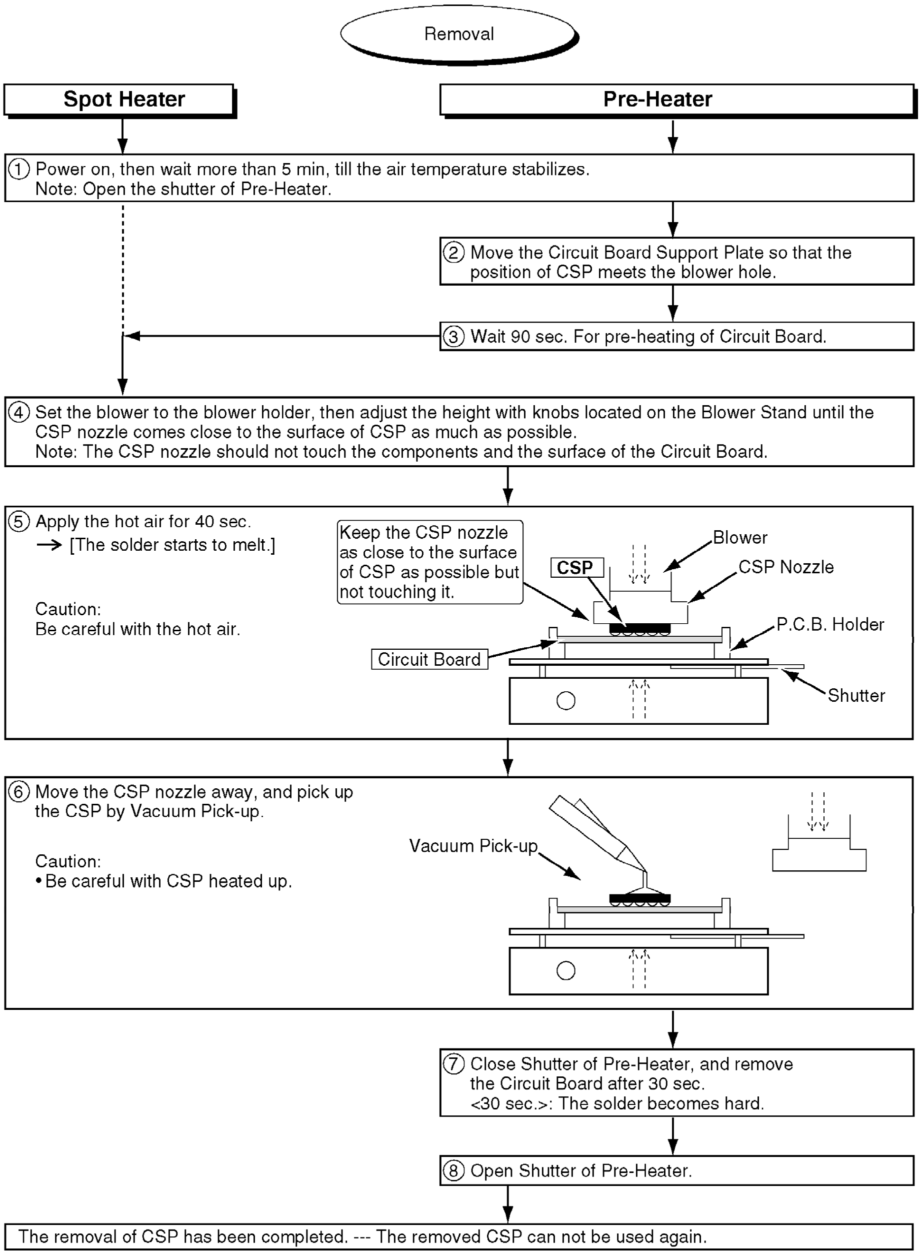

Blower Holder
Blower
Nozzle
Spot Heater
Circuit Board
Shutter
P.C.B. Holder
Vacuum Pick-up
Pre-Heater

Fig. 8-2

Fixture	Preparation for Fixture	Condition		Warming-up
		Heat Control Level	Air Control Level	
Spot Heater	Set a Nozzle to Blower of Spot Heater.	Level 8.5 (245 °C)	MAX	After setting fixtures, turn on the power. Then, wait for approx. 5 minutes to stabilize air condition. **Note:** Be sure to open the shutter of Pre-Heater.
Pre-Heater	Set the Blower to Blower Holder.	MAX (120 °C~150 °C)	---	
Reference for Temperature	 Blower Nozzle CSP IC Circuit Board approx. 15 mm P.C.B. Holder Plate Shutter Pre-Heater			

7.6.2. Removal of CSP IC

Fig. 8-3


Removal
Spot Heater
Pre-Heater
Keep the CSP nozzle as close to the surface of CSP as possible but not touching it.
CSP
Blower
CSP Nozzle
P.C.B. Holder
Circuit Board
Shutter
Vacuum Pick-up

① Power on, then wait more than 5 min, till the air temperature stabilizes.
Note: Open the shutter of Pre-Heater.

② Move the Circuit Board Support Plate so that the position of CSP meets the blower hole.

③ Wait 90 sec. For pre-heating of Circuit Board.

④ Set the blower to the blower holder, then adjust the height with knobs located on the Blower Stand until the CSP nozzle comes close to the surface of CSP as much as possible.
Note: The CSP nozzle should not touch the components and the surface of the Circuit Board.

⑤ Apply the hot air for 40 sec.
→ [The solder starts to melt.]

Caution:
Be careful with the hot air.

⑥ Move the CSP nozzle away, and pick up the CSP by Vacuum Pick-up.

Caution:
- Be careful with CSP heated up.

⑦ Close Shutter of Pre-Heater, and remove the Circuit Board after 30 sec.
<30 sec.>: The solder becomes hard.

⑧ Open Shutter of Pre-Heater.

The removal of CSP has been completed. --- The removed CSP can not be used again.

7.6.3. Installation of CSP IC

Fig. 8-4

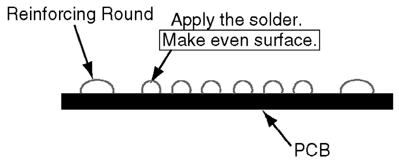
Mounting of CSP

A. Cleaning

① **Applying the flux to the round terminal pattern.**
Apply the flux using an applicator, then tap it on round terminals.

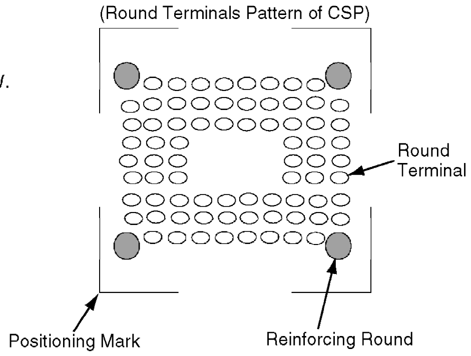
② **Applying the solder to round terminals of PCB. --- [Using string solder]**
Apply the solder to the soldering iron, then move the soldering iron on the round terminals so that the solder evenly stays on the round terminals (Confirm with Loupe).
Note:

- The power of the soldering iron should be less than 30 W.
- Be sure to make all solders applied are the same in size and height.


Reinforcing Round
Apply the solder.
Make even surface.
PCB

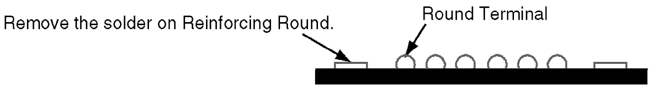
Caution:

- Do not touch the round terminals with the soldering iron. Otherwise, pattern may be damage.


(Round Terminals Pattern of CSP)
Round Terminal
Positioning Mark
Reinforcing Round

Remark:
There are 2 types of CSPs. One of them is with Reinforcing Round, and the other one is without.

③ **For CSP with Reinforcing Round ⟶ Removing the solder on 4 corners (Reinforcing Rounds)**


Remove the solder on Reinforcing Round.
Round Terminal

④ **Cleaning of the round terminal pattern using an applicator with the cleaner (alcohol etc.).**

⑤ **Applying the flux to the round terminal pattern.**
Note: Do not let any dust get into the flux.

B. Positioning

⑥ **Check if there are solder on new CSP or not. If not, perform steps (1) ~ (4).**
Note: When applying the solder, do not touch the surface of CSP with the soldering iron.
(1) Apply enough flux to the CSP.
(2) Apply a small amount of the solder.
(3) Clean the flux once.
(4) Apply a small amount of flux to CSP.
Note: Do not apply too much the flux.

⑦ **Positioning of new CSP on the round terminal pattern.**
- Put CSP on the round terminal pattern so that 4 corners of CSP meet the positioning marks printed on PCB.

Fig. 8-5

C. Mounting

Spot Heater

Pre-Heater

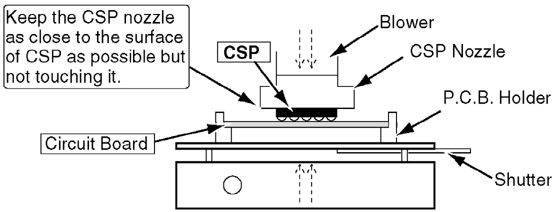
① Set the Circuit Board on Pre-Heater. (after positioning CSP)

② Move P.C.B. Holder so that CSP position comes over the center of the blower hole.

③ Warm up the Circuit Board for 90 sec.

④ Set CSP nozzle over CSP.
The height of CSP nozzle is already adjusted during its removal.

⑤ Heat up CSP for 40 sec.
→ [Solder starts to melt.]
When the solder melts, the CSP will move slightly by itself until it sits correctly on the molten solder.


Keep the CSP nozzle as close to the surface of CSP as possible but not touching it.
CSP
Blower
CSP Nozzle
P.C.B. Holder
Circuit Board
Shutter

Caution:
- Be careful with the hot air.
- Be carefull with any parts (connector, etc.).

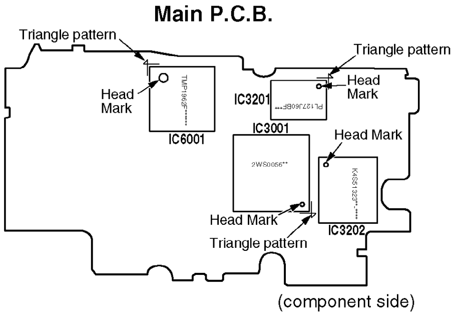
⑥ Close Shutter of Pre-Heater, and remove the Circuit Board after 30 sec.
[30 sec.] --- The solder becomes hard.

Mounting of CSP is completed. → **Reconfirm the mounting position with Position Mark.**

That's all for CSP repair, and the final confirmation if the repair work is OK or not should be made by assembling the repaired Circuit Board into the camera unit.

7.6.4. CSP IC Location

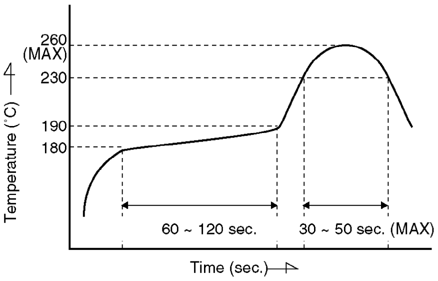
Make sure to install CSP IC in the correct position on the Main P.C.B. as shown.


Main P.C.B.
Triangle pattern
Head Mark
IC6001
IC3201
Triangle pattern
Head Mark
IC3001
Head Mark
Head Mark
Triangle pattern
IC3202
(component side)

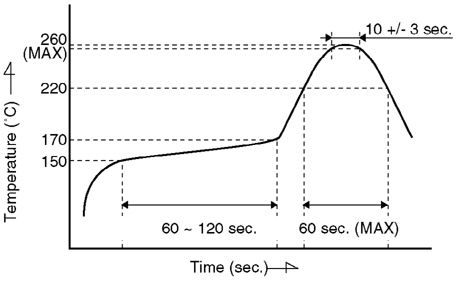
7.6.5. Temperature Profile for Heat Resistance of CSP IC

Refer to the temperature profile. CSP ICs in the 2006 model have the following temperature profile.

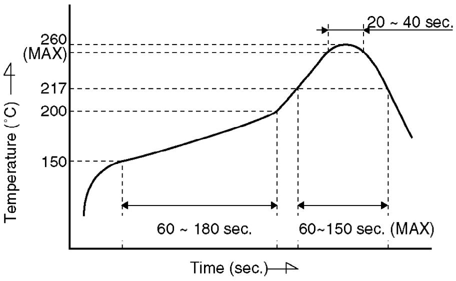
IC6001



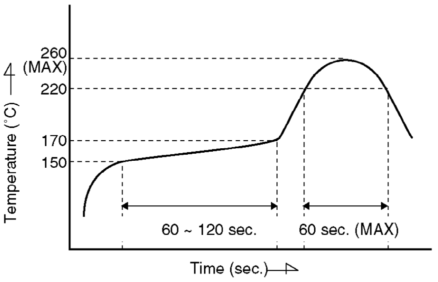
IC3001



IC3201



IC3202



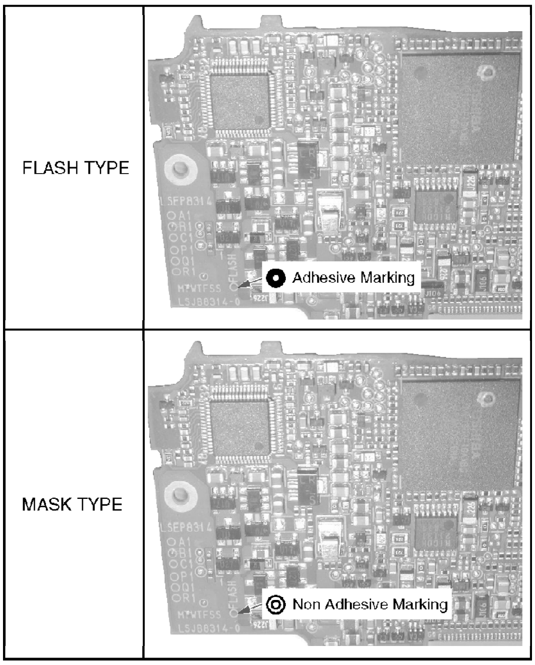
7.7. Special Note

All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handlings techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

7.8. IC6001 REPLACEMENT NOTE

Two types of IC6001 (FLASH or MASK) are used on a running change basis, however MASK TYPE of IC6001 is supplied only as a replacement part.

Types of IC6001



Perform the addtion (R6010 and R6029) and also deletion (R6009 and R6030) of the following part simultaneously, when exchanging from the "FLASH TYPE" to the "MASK TYPE" of IC6001.

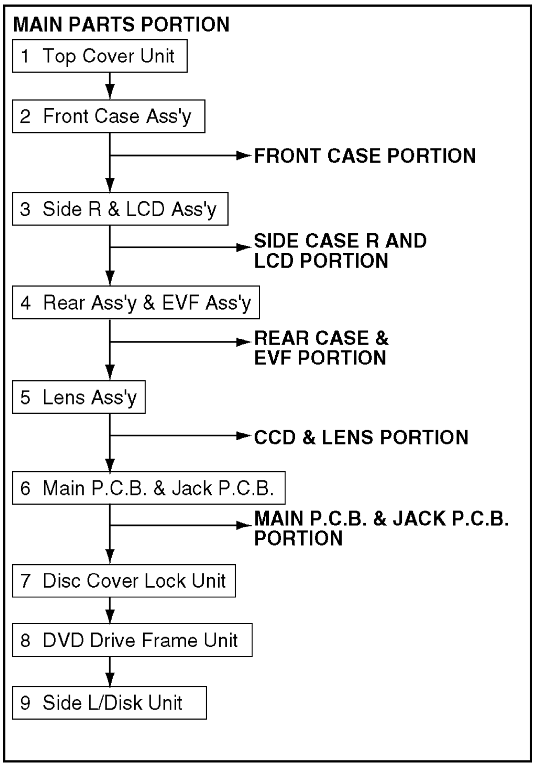
	FLASH TYPE	**MASK TYPE**	
Ref No.	Part No.	Part No.	Part Name
IC6001	- - - - - - - - - -	C2DBLK000122	IC
R6009	ERJ3GEY0R00V	- - - - - - - - - -	Resistor
R6010	- - - - - - - - - -	ERJ3GEY0R00V	Resistor
R6029	- - - - - - - - - -	ERJ3GEY0R00V	Resistor
R6030	ERJ3GEY0R00V	- - - - - - - - - -	Resistor

8. Disassembly and Assembly Instructions

8.1. Cabinet Section

8.1.1. DISASSEMBLY FLOWCHART

This flow chart indicates the disassembly steps of the cabinet parts and the P.C.Boards in order to gain access to item (s) to be serviced. When reassembling, perform the step (s) in the reverse order. Bend, route and dress the wires as they were originally.


MAIN PARTS PORTION
1 Top Cover Unit
2 Front Case Ass'y
FRONT CASE PORTION
3 Side R & LCD Ass'y
SIDE CASE R AND LCD PORTION
4 Rear Ass'y & EVF Ass'y
REAR CASE & EVF PORTION
5 Lens Ass'y
CCD & LENS PORTION
6 Main P.C.B. & Jack P.C.B.
MAIN P.C.B. & JACK P.C.B. PORTION
7 Disc Cover Lock Unit
8 DVD Drive Frame Unit
9 Side L/Disk Unit

Note :

1. **When removing the cabinet, work with care so as not to break the Locking Tabs.**
2. **Place a cloth or some other soft material under the P.C. Boards or Unit to prevent damage.**
3. **When reinstalling, ensure that the connectors are connected and electrical components have not been damaged.**
4. **Do not supply power to the unit during disassembly and reassembly.**

8.1.2. Disassembly Method

9. Measurements and Adjustments

9.1. Electrical Adustment

9.1.1. Initial Guideline

The table below shows which adjustments are necessary according to the unit parts and individual parts to be replaced. Make sure to perform these adjustments shown below as necessary.

Replacement Parts / Adjustment Item		MAIN P.C.B.	IC501 (CAMERA SIGNAL PROCESS)	IC701 (FOCUS/ZOOM MOTOR DRIVE & IRIS/HALL AMP CONTROL)	IC3001 (CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING)	IC3301 (VIDEO/AUDIO SIGNAL PROCESS)	IC6001 (SYSTEM MICROCONTROLLER)	IC6004 (EEPROM)	IC3201 (Flash Memory)	IC8001(LCD RGB /EVF SIGNAL PROCESS)	CCD P.C.B.	LENS UNIT
Camera	CAM hall amplifier and Iris PWM	○		○			○	○				○
	CAM Zoom Tracking and De-focus	○						○				○
	CAM WB coarse	○	○		○			○			○	
	CAM AWB 3100	○	○		○			○			○	
	CAM AWB 5100	○	○		○			○			○	
	CAM Revision CCD scrach	○						○			○	
Video	Luminance level	○			○	○		○				
LCD	LCD Contrast							○		○		
	LCD Bright							○		○		
	LCD Sub Bright							○		○		
	LCD VCOM level							○		○		
EVF	EVF Horizontal free running							○		○		
	EVF Contrast							○		○		
	EVF Bright							○		○		
	EVF Sub Bright							○		○		
	EVF VCOM leve							○		○		

Note: ○ : Adjustment Item

9.1.2. Installation of USB-SERIAL driver

Execute the "Setup.exe" file in "ComMass" folder by double clicking to install the USB-SERIAL driver.

9.1.3. COM Mode

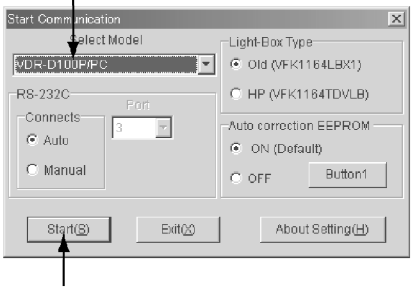
If a Disc or SD Card is inserted, remove before operation.
To enter the PC connection (COM) mode, push the [DELETE], [RECORDING START/STOP] and [JOYSTICK CONTROL UP] simultaneously for 3 seconds without connecting the USB Cable.

<LCD Monitor>

9.1.4. Set up of PC-EVR Adjustment Program

1. Turn on the PC and install the PC-EVR Adjustment Program into the PC.
2. Execute the "kdr2006.exe" file by double clicking to start up the PC-EVR Adjustment Program.
   The main menu will be displayed.
3. Select the appropriate model.
4. Turn on the camcorder and set to PC connection (COM) mode.
   Then click "Start".

① Select the appropriate model.


Start Communication

Select Model: VDR-D100P/PC

RS-232C
Connects: ● Auto ○ Manual
Port: 3

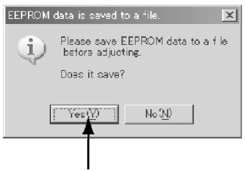
Light-Box Type: ● Old (VFK1164LBX1) ○ HP (VFK1164TDVLB)

Auto correction EEPROM: ● ON (Default) ○ OFF

② Click to start.

5. When the communication is complete, the dialog will appear.
   Click "Yes," and "Save" to save the EEPROM data.

Fig. E2-2


EEPROM data is saved to a file.

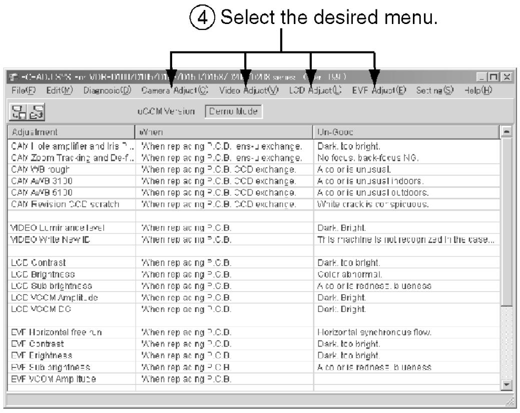
Please save EEPROM data to a file before adjusting.

Does it save?

③ Click.

6. When saving EEPROM data is complete, the menu will appear.
   To perform each adjustment, display the adjustment menu by selecting from "Camera Adjust," "Vcr Adjust," "LCD Adjust" or "EVF Adjust" and select each adjustment item.

Fig. E2-3


④ Select the desired menu.

PC-ADJ SYS for VDR-D100/D105/D108/D150/D158/D200/D208 series (Ver. 0.99)
File(F)
Edit(M)
Diagnosis(D)
Camera Adjust(C)
Video Adjust(V)
LCD Adjust(L)
EVF Adjust(E)
Setting(S)
Help(H)
uCOM Version
Demo Mode

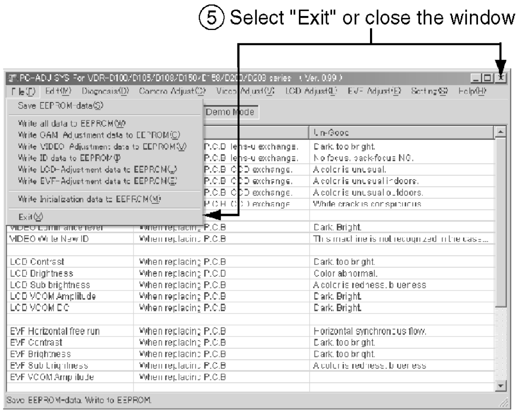
Adjustment	When	Un-Good
CAM Hole amplifier and Iris P...	When replacing P.C.B. lens-unit exchange.	Dark. too bright.
CAM Zoom Tracking and De-f...	When replacing P.C.B. lens-unit exchange.	No focus. back-focus NG.
CAM WB rough	When replacing P.C.B. CCD exchange.	A color is unusual.
CAM AWB 3100	When replacing P.C.B. CCD exchange.	A color is unusual indoors.
CAM AWB 5100	When replacing P.C.B. CCD exchange.	A color is unusual outdoors.
CAM Revision CCD scratch	When replacing P.C.B. CCD exchange.	White crack is conspicuous.
VIDEO Luminance level	When replacing P.C.B.	Dark. Bright.
VIDEO Write New ID	When replacing P.C.B.	This machine is not recognized in the case...
LCD Contrast	When replacing P.C.B.	Dark. too bright.
LCD Brightness	When replacing P.C.B.	Color abnormal.
LCD Sub brightness	When replacing P.C.B.	A color is redness. blueness
LCD VCOM Amplitude	When replacing P.C.B.	Dark. Bright.
LCD VCOM DC	When replacing P.C.B.	Dark. Bright.
EVF Horizontal free run	When replacing P.C.B.	Horizontal synchronous flow.
EVF Contrast	When replacing P.C.B.	Dark. too bright.
EVF Brightness	When replacing P.C.B.	Dark. too bright.
EVF Sub brightness	When replacing P.C.B.	A color is redness. blueness
EVF VCOM Amplitude	When replacing P.C.B.	

Note:

The adjusted data is stored in the EEPROM IC after each adjustment.

7. After adjustment, to close the software, select "Exit" in the File menu or close the window.

Fig. E2-4


⑤ Select "Exit" or close the window.

PC-ADJ SYS For VDR-D100/D105/D108/D150/D158/D200/D208 series (Ver. 0.99)
File(F)
Edit(M)
Diagnosis(D)
Camera Adjust(C)
Video Adjust(V)
LCD Adjust(L)
EVF Adjust(E)
Setting(S)
Help(H)
Save EEPROM-data(S)
Write all data to EEPROM(W)
Write CAM Adjustment data to EEPROM(C)
Write VIDEO Adjustment data to EEPROM(V)
Write ID data to EEPROM(I)
Write LCD-Adjustment data to EEPROM(L)
Write EVF-Adjustment data to EEPROM(E)
Write Initialization data to EEPROM(M)
Exit(X)
Demo Mode

		Un-Good
	P.C.B lens-u exchange.	Dark. too bright.
	P.C.B lens-u exchange.	No focus. back-focus NG.
	P.C.B CCD exchange.	A color is unusual.
	P.C.B CCD exchange.	A color is unusual indoors.
	P.C.B CCD exchange.	A color is unusual outdoors.
	P.C.B CCD exchange.	White crack is conspicuous.
VIDEO Luminance level	When replacing P.C.B	Dark. Bright.
VIDEO Write New ID	When replacing P.C.B	This machine is not recognized in the case...
LCD Contrast	When replacing P.C.B	Dark. too bright.
LCD Brightness	When replacing P.C.B	Color abnormal.
LCD Sub brightness	When replacing P.C.B	A color is redness. blueness
LCD VCOM Amplitude	When replacing P.C.B	Dark. Bright.
LCD VCOM DC	When replacing P.C.B	Dark. Bright.
EVF Horizontal free run	When replacing P.C.B	Horizontal synchronous flow.
EVF Contrast	When replacing P.C.B	Dark. too bright.
EVF Brightness	When replacing P.C.B	Dark. too bright.
EVF Sub brightness	When replacing P.C.B	A color is redness. blueness
EVF VCOM Amplitude	When replacing P.C.B	

Save EEPROM-data. Write to EEPROM.

8. To release the PC connection (COM) mode, push the [DELETE], [RECORDING START/STOP] and [JOYSTICK CONTROL UP] simultaneously for 3 seconds without connecting the USB Cable.

10. Maintenance

10.1. Cleaning Lens, Viewfinder and LCD Panel

Do not touch the surface of the lens, Viewfinder and LCD Panel with your hand.
When cleaning the lens, use air-blower to blow off the dust.
When cleaning the LCD Panel, dampen the lens cleaning paper with lens cleaner, and gently wipe the surface.

Note:

Lens cleaning paper and lens cleaner are available at camera shops, etc.

10.2. Cleaning disc and optical pickup

Do not spray insecticides or volatile chemicals onto the unit.
If the unit is sprayed with such chemicals, its body may be marred and the surface finish may peel off.
Do not leave rubber or plastic products in contact with the unit for a long time.

When you use the unit in a sandy or dusty place such as a beach, do not let sand or fine dust get into the body and terminals of the unit.
Also, keep the unit away from sea water.
Sand or dust may damage the unit. (Care should be taken when inserting and removing a disc or a card.)
If sea water splashes onto the unit, wipe off the water with a well wrung cloth. Then wipe the unit again with a dry cloth.

When carrying the unit, do not drop or bump it.
A strong impact can break the unit's casing, causing it to malfunction.

Do not use benzine, paint thinner or alcohol for cleaning the unit.
Before cleaning, detach the battery or pull out the AC cable from the AC outlet.
The camera body may be discolored and the surface finish may peel off.
Wipe the unit with a soft dry cloth to remove dust and fingerprints. To remove stubborn stains, thoroughly wring a cloth that has been soaked in a neutral detergent diluted with water and wipe the unit with it. Afterwards, wipe it with a dry cloth.
When you use a chemical dust cloth, follow the instructions that came with the cloth.

Do not use a commercial available 8 cm (3 z) CD lens cleaner.
Using 8 cm (3 z) CD lens cleaner could cause this unit to malfunction.

11. Block Diagrams

12. Schematic Diagrams

12.1. SCHEMATIC DIAGRAM & CIRCUIT BOARD LAYOUT NOTES

12.2. MAIN SCHEMATIC DIAGRAMS

12.3. FRONT SCHEMATIC DIAGRAM

12.4. SIDE R SCHEMATIC DIAGRAM

12.5. LCD BACKLIGHT SCHEMATIC DIAGRAM

12.6. JACK / EVF BACKLIGHT / DISK COVER LOCK SCHEMATIC DIAGRAMS

12.7. CCD / LCD SW / SIDE L/DISK SCHEMATIC DIAGRAMS

12.8. INTERCONNECTION SCHEMATIC DIAGRAM

12.9. VOLTAGE CHART

13. Printed Circuit Board

13.1. MAIN P.C.B.

13.2. FRONT P.C.B.

13.3. JACK P.C.B.

13.4. LCD BACKLIGHT P.C.B.

13.5. SIDE R P.C.B. / OPEN SWITCH P.C.B.

14. Appendix Information of Schematic Diagram

14.1. CHECKING POINT TABLE OF THE CSP IC

14.2. WAVEFORM TABLE

15. Exploded View

15.1. MAIN PARTS SECTION

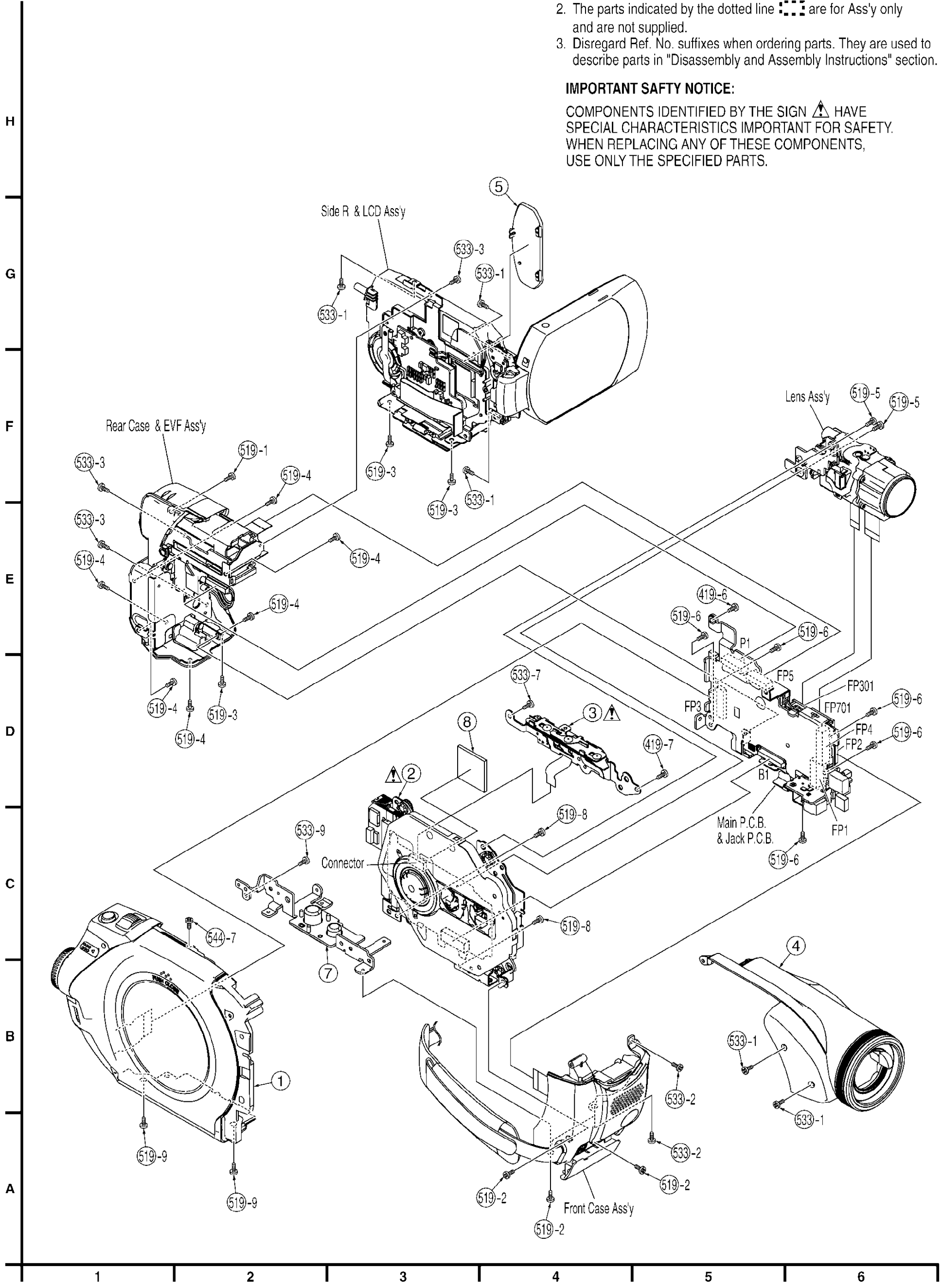
❶ MAIN PARTS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁞┅⁞ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.

IMPORTANT SAFTY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



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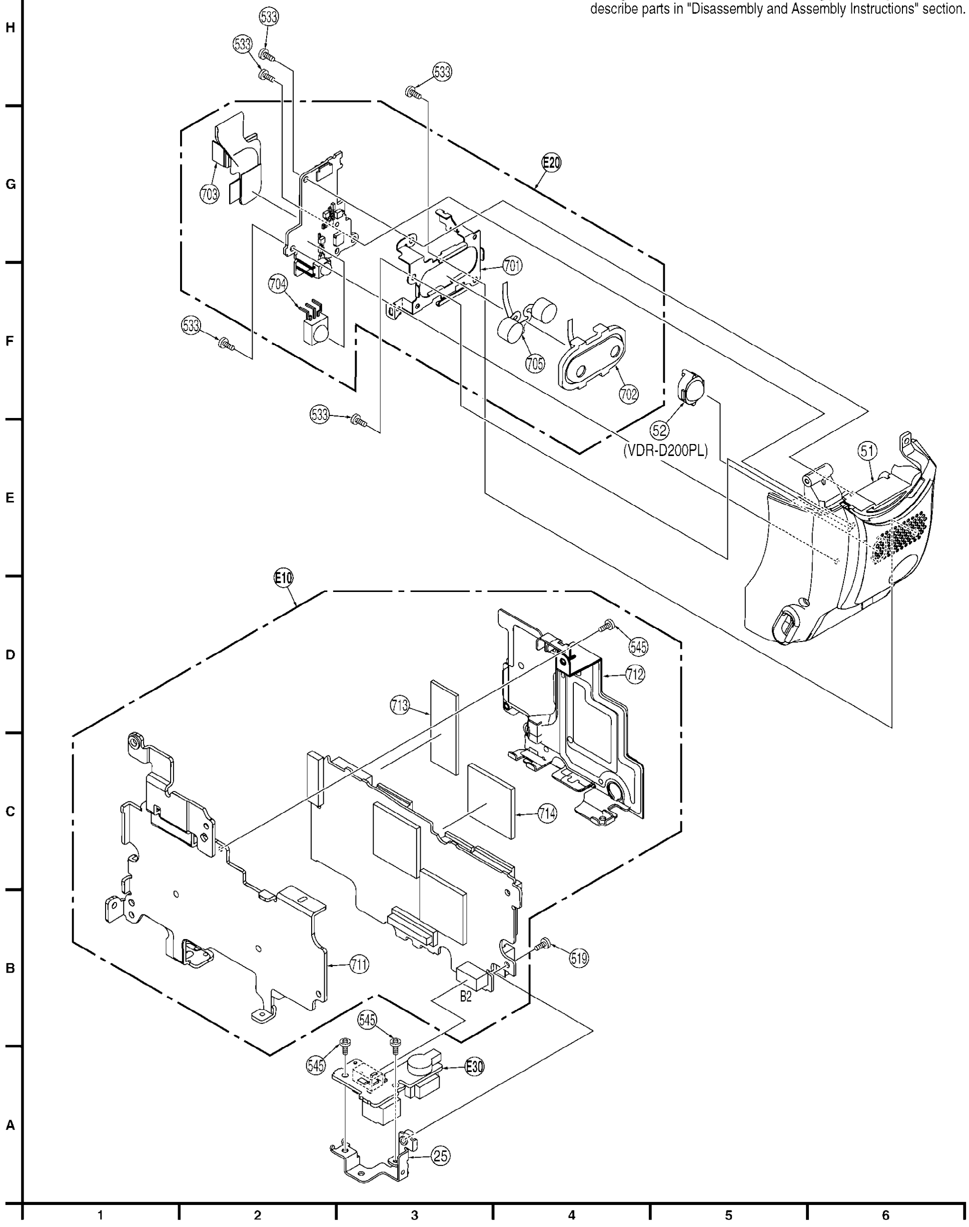
6
⑤
Side R & LCD Ass'y
(533)-3
(533)-1
(533)-1
(519)-3
(519)-3
(533)-1
Rear Case & EVF Ass'y
(533)-3
(519)-1
(519)-4
(533)-3
(519)-4
(519)-4
(519)-4
(519)-4
(519)-3
(519)-4
Lens Ass'y
(519)-5
(519)-5
(419)-6
(519)-6
(519)-6
P1
FP5
FP301
FP3
FP701
(519)-6
FP4
FP2
(519)-6
B1
Main P.C.B. & Jack P.C.B.
FP1
(519)-6
(533)-7
⑧
③⚠
(419)-7
⚠②
(519)-8
(533)-9
Connector
(519)-8
(544)-7
⑦
④
①
(533)-1
(533)-1
(533)-2
(533)-2
(519)-2
(519)-9
(519)-9
(519)-2
Front Case Ass'y
(519)-2

15.2. FRONT CASE, MAIN P.C.B. AND JACK P.C.B. SECTION

❷ FRONT CASE, MAIN P.C.B. AND JACK P.C.B. SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.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4
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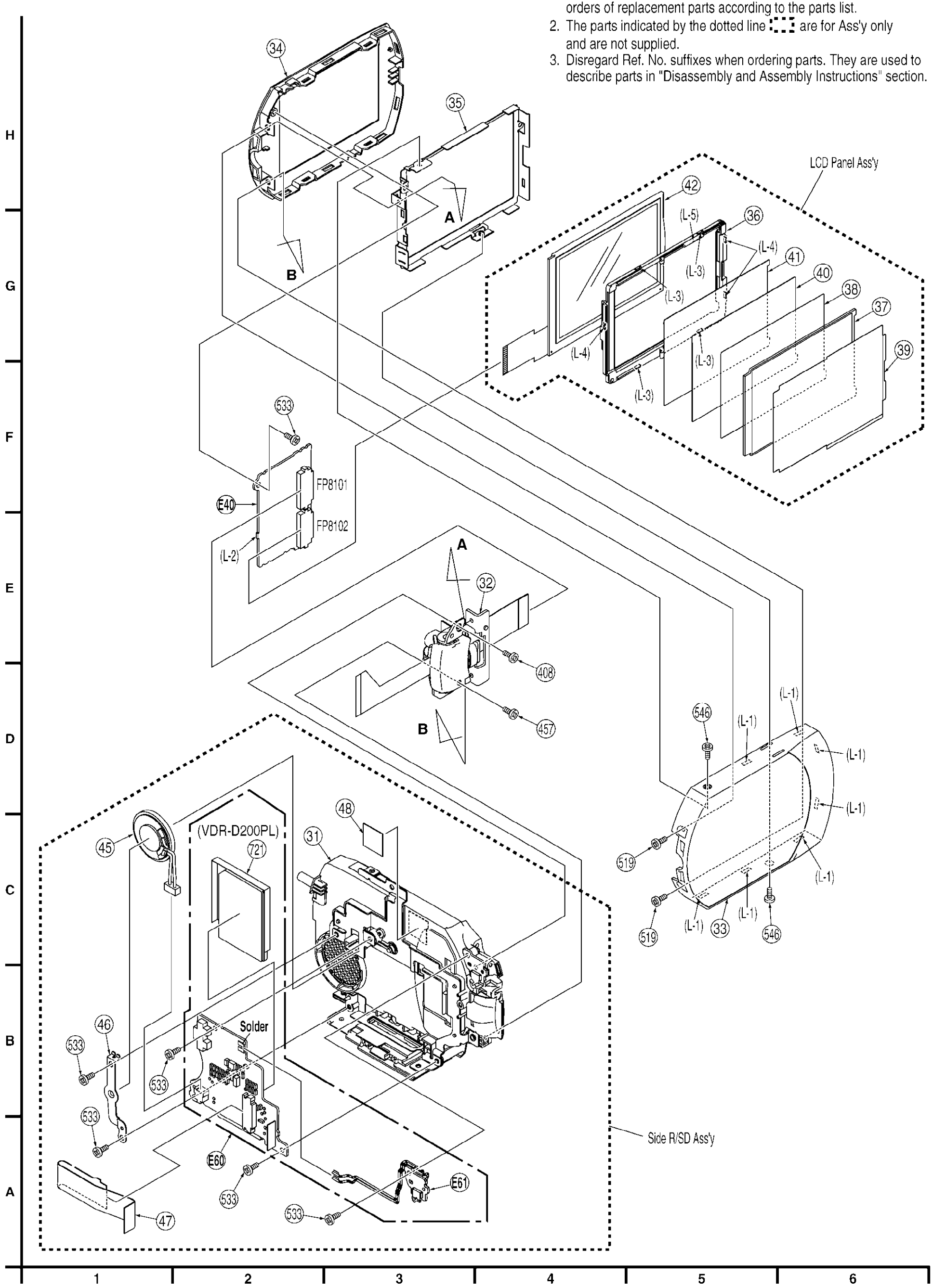
533
533
533
E20
703
701
704
533
705
702
533
52
(VDR-D200PL)
51
E10
545
712
713
714
711
519
B2
545
545
E30
25

15.3. SIDE CASE R AND LCD SECTION

❸ SIDE CASE R AND LCD SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁚⁚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.



34
35
A
B
LCD Panel Ass'y
42
(L-5)
36
(L-4)
(L-3)
41
40
38
37
39
533
FP8101
FP8102
E40
(L-2)
A
32
408
457
B
546
(L-1)
519
33
45
(VDR-D200PL)
721
48
31
Solder
46
533
E60
E61
47
Side R/SD Ass'y
H
G
F
E
D
C
B
A
1
2
3
4
5
6

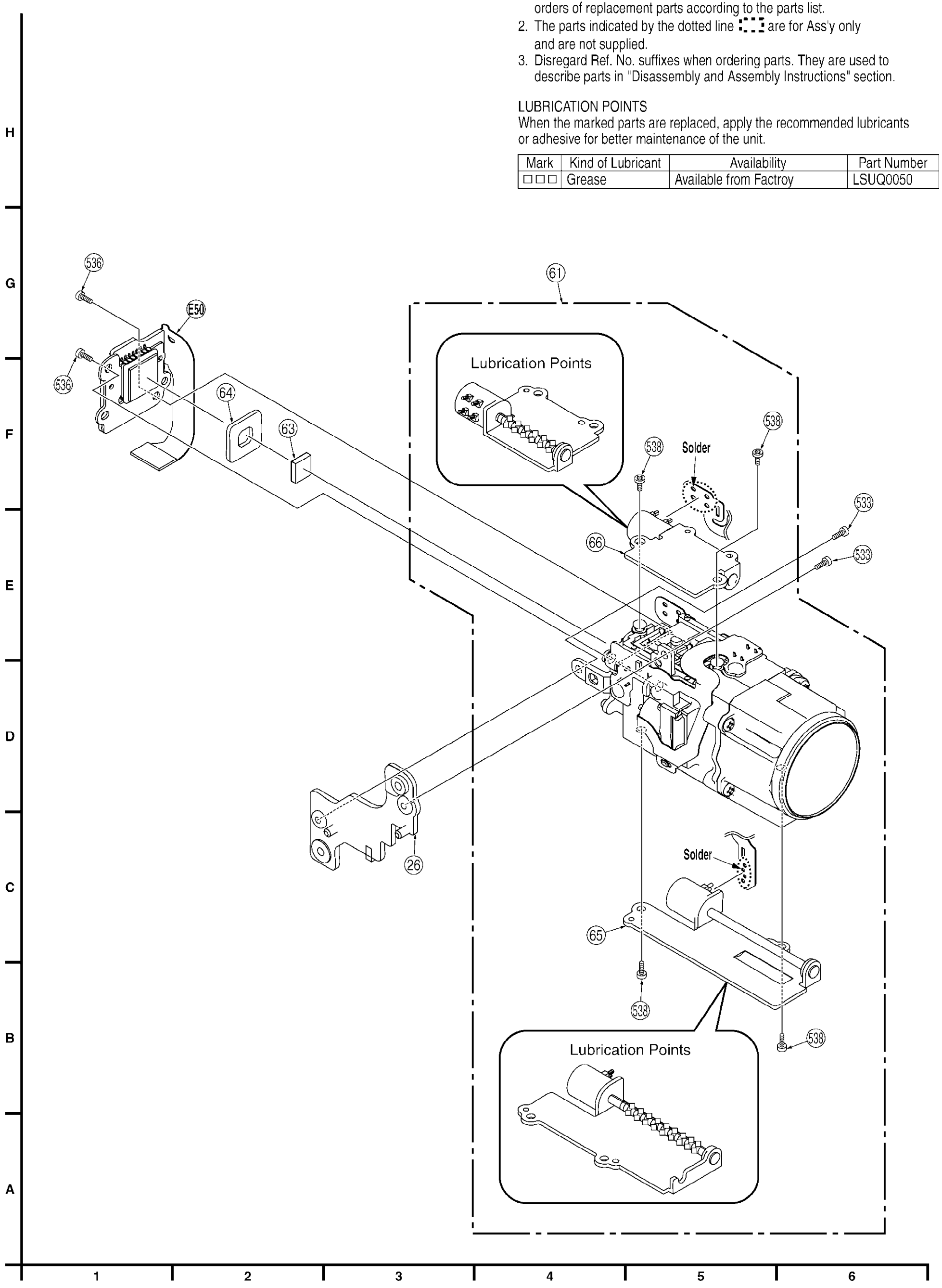
15.4. CCD AND LENS SECTION

❹ CCD AND LENS SECTION

Note:
1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.

LUBRICATION POINTS
When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

Mark	Kind of Lubricant	Availability	Part Number
□□□	Grease	Available from Factroy	LSUQ0050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D
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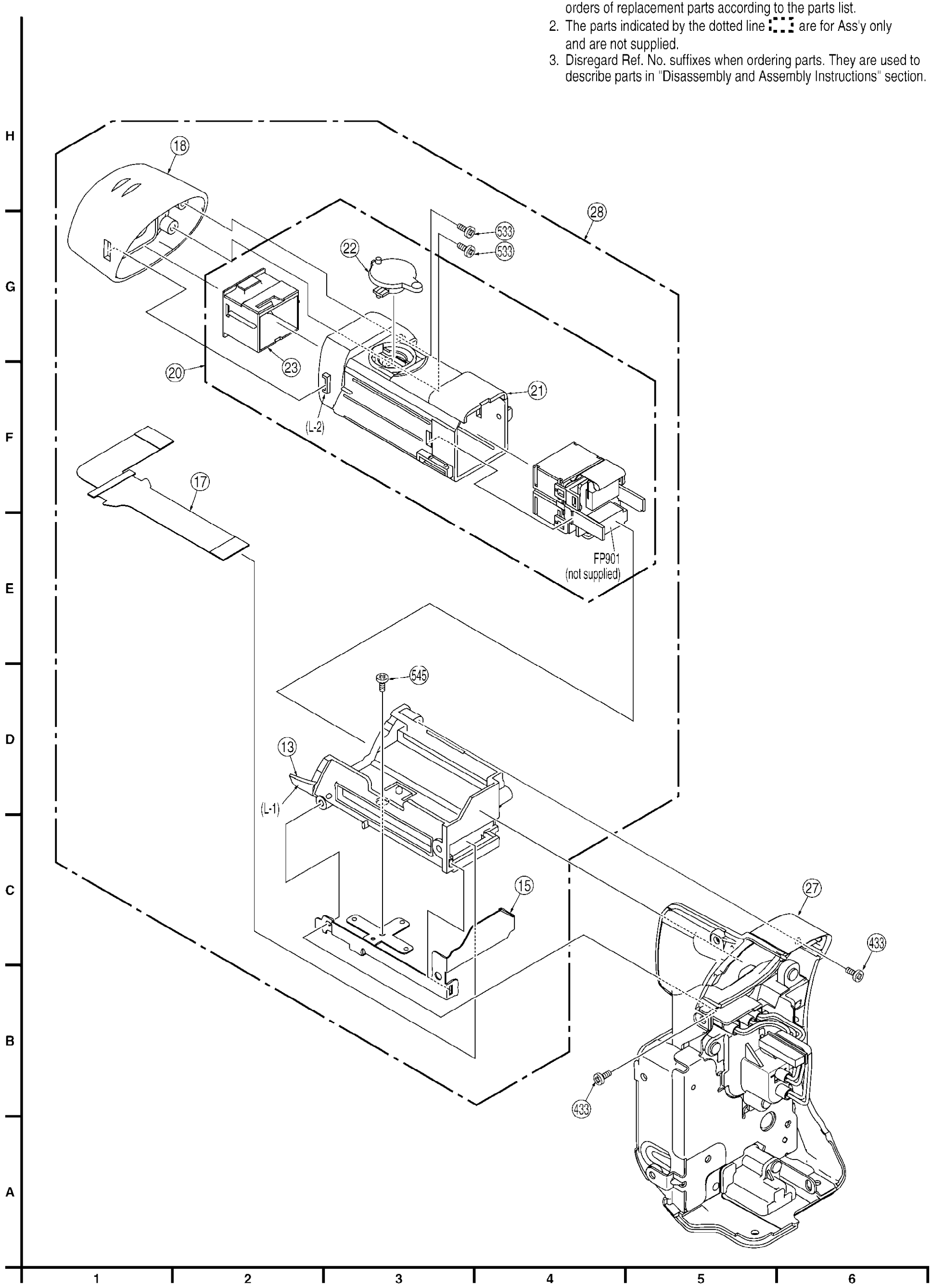
3
4
5
6
536
E50
536
64
63
61
Lubrication Points
538
Solder
538
66
533
533
26
Solder
65
538
538
Lubrication Points

15.5. REAR CASE AND EVF SECTION

❺ REAR CASE AND EVF SECTION

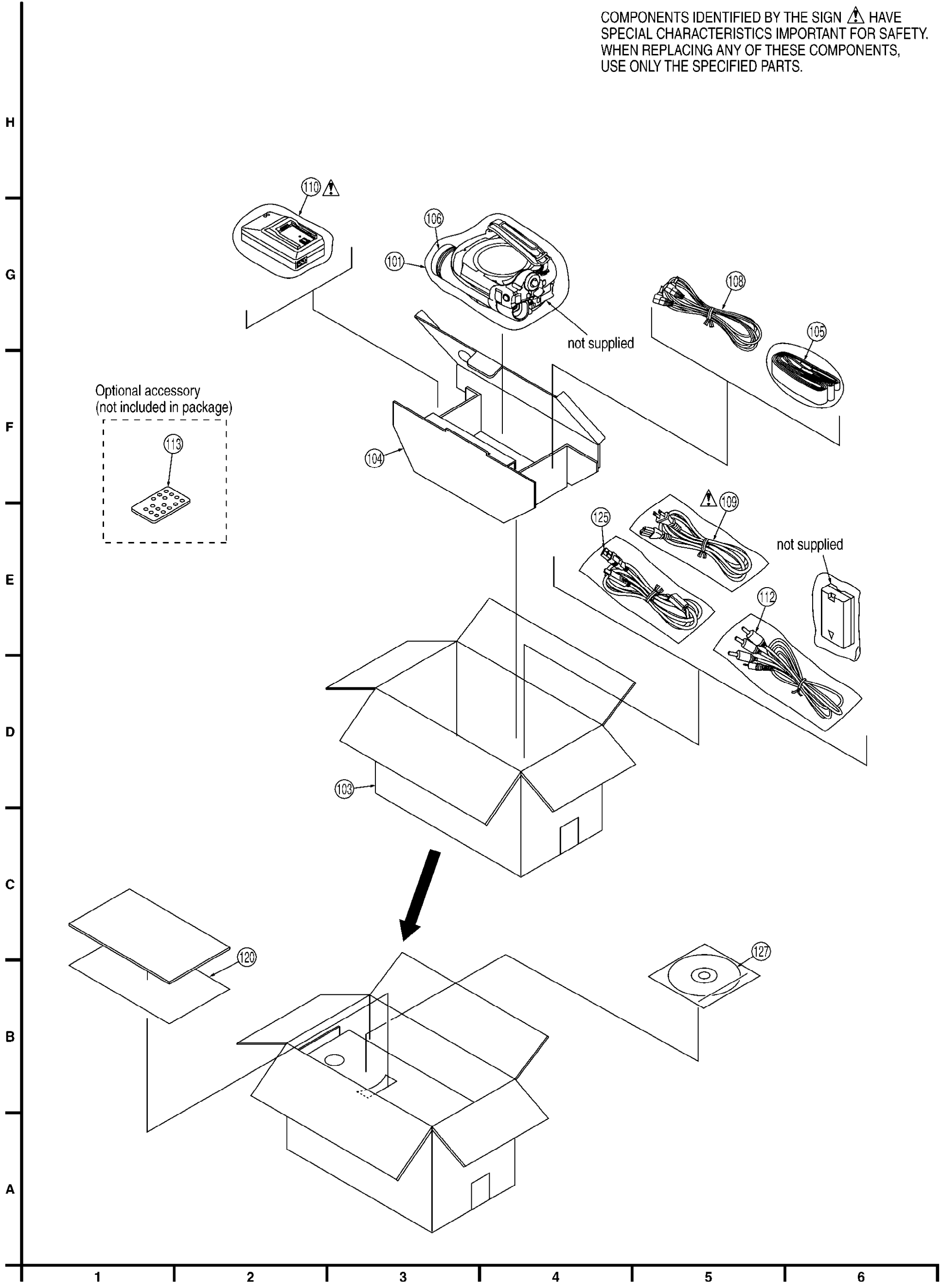
Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.


H
G
F
E
D
C
B
A
18
28
533
533
22
23
20
21
(L-2)
17
FP901
(not supplied)
545
13
(L-1)
15
27
433
433
1
2
3
4
5
6

15.6. PACKING PARTS AND ACCESSORIES SECTION

❻ PACKING PARTS AND ACCESSORIES SECTION



IMPORTANT SAFTY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

H
G
F
E
D
C
B
A
1
2
3
4
5
6
110 ⚠
106
101
not supplied
108
105
Optional accessory
(not included in package)
113
104
⚠ 109
125
not supplied
112
103
120
127

16. Replacement Parts Lists

BEFORE REPLACING PARTS, READ THE FOLLOWING:

1. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

2. IMPORTANT SAFETY NOTICE
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.

3. Definition of Parts supplier:
   A. Parts with mark "SPC" in the Remarks column are supplied from Spare Parts Center of Panasonic AVC Company.
   B. Parts with mark "MKE" in the Remarks column are supplied from MKE.
   C. Parts without mark in the Remarks column are supplied from MKI.

4. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

5. Unless otherwise specified;
   All resistors are in Ω, K = 1,000 Ω, M = 1,000 kΩ.

6. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
   NR: Non Repairable Board Ass'y
   MGF CHIP: Metal Glaze Film Chip
   C CHIP: Ceramic Chip
   COMPLX CMP: Complex Component
   W FLMPRF: Wirewound Flameproof
   C.B.A.: Circuit Board Assembly
   P.C.B.: Printed Circuit Board
   E.S.D.: Electrostatically Sensitive Devices
   CSP: Chip Size Package

7. AC Adaptor replacement note:
   AC Adaptor used on these movie camera is PV-DAC14D. However, DE-974FA is supplied as a replacement part for PV-DAC14D.

16.1. MECHANICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. **Parts with mark "SPC" in the Remarks column are supplied from Spare Parts Center of Panasonic AVC Company.**
2. **Parts without mark in the Remarks column are supplied from PSEC.**

MECHANICAL REPLACEMENT PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
1	LSYK1645	SIDE L/DISK UNIT	VDR-D100PL
1	LSYK1619	SIDE L/DISK UNIT	VDR-D200PL
2	LMXK1931S-4	DVD DRIVE FRAME UNIT	⚠
3	LSXY1001	DISK COVER LOCK UNIT	⚠
4	LSYK1638	TOP COVER UNIT	
5	LSKF0649	EVR COVER	
7	LSYK1620	BOTTOM ANGLE UNIT	
8	LSSC0895	HEAT CONDUCT SHEET	
13	LSKM1133	EVF BASE FRAME	
15	LSSC0824	EVF EARTH PLATE	
17	LSJB8323	COLOR EVF FLEXIBLE PRINTED CIRCUIT	
18	LSGQ0172	EYE CAP	
20	LSYK1624	EVF CASE 1 UNIT,ABS RESIN	
21	LSKM1132	EVF CASE,ABS RESIN	
22	LSGT0611	EYE SIGHT LEVER	
23	LSYK1626	EVF LENS UNIT	
25	LSSC0823	JACK ANGLE	
26	LSMD0818	LENS HOLDER	
27	LSYK1621	REAR CASE UNIT,ABS RESIN	
28	LSYK1622	EVF UNIT	RTL
31	LSYK1648	SIDE CASE R UNIT,ABS RESIN	VDR-D100PL
31	LSYK1631	SIDE CASE R UNIT,ABS RESIN	VDR-D200PL
32	LSYK1634	LCD SHAFT CASE UNIT,ABS RESIN	
33	LSYK1652	LCD CASE A UNIT,ABS RESIN	VDR-D100PL
33	LSYK1651	LCD CASE A UNIT,ABS RESIN	VDR-D200PL
34	LSKM1134	LCD CASE B,ABS RESIN	
35	LSXY0933	LCD SHIELD PLATE UNIT	
36	LSXY0934	LCD PANEL HOLDER UNIT	
37	LSGL0422	LEAD LIGHT PANEL	
38	LSGL0404	DIFFUSION SHEET	
39	LSGL0423	REFLECT SHEET	
40	LSGL0406	BEF SHEET	
41	LSGL0421	BEF SHEET A	
42	L5BDDYH00014	LIQUID CRYSTAL DISPLAY PANEL	
45	L0AA02A00062	SPEAKER	
46	LSMC0136	SPEAKER SPRING PLATE	
47	LSJB8327	SIDE-R FPC	
48	LSMF0372	SHEET	
51	LSYK1662	FRONT CASE 1 UNIT,ABS RESIN	VDR-D100PL
51	LSYK1661	FRONT CASE 1 UNIT,ABS RESIN	VDR-D200PL
52	LSMD0822	LED LIGHT LENS	VDR-D200PL

Ref. No.	Part No.	Part Name & Description	Remarks
61	LSXN0041	LENS UNIT	
63	VDL1390-B	OPTICAL LOW PASS FILTER	
64	VMX3282	FILTER RUBBER	
65	L6HA66NB0005	ZOOM MOTOR UNIT	
66	L6HA66NB0004	FOCUS MOTOR UNIT	
101	VPF1129	POLY BAG	
103	LSPG2081	PACKING CASE,PAPER	VDR-D100PL
103	LSPG2080	PACKING CASE,PAPER	VDR-D200PL
104	LSPN0659	DVD PACKING	
105	VFC3506-1A	SHOULDER STRAP	
106	LSYF0552	LENS CAP UNIT	
108	K2GJ2DC00011	DC CABLE W/PLUG	
109	K2CA2CA00029	AC CORD W/PLUG	⚠
110	DE-974FA	AC ADAPTOR UNIT	⚠
112	K2KZ9CB00001	AUDIO VIDEO CABLE W/PLUG	
113	N2QAEC000019	INFRARED REMOTE CONTROL UNIT	
120	LSQT1067-A	INSTRUCTION BOOK	
125	K1HA05CD0014	USB CABLE W/PLUG	
127	LSFT0643-1A	CD-ROM	
408	XQN2+BJ6FN	SCREW,STEEL	
419	XQN2+BJ5FN	SCREW,STEEL	
433	XQN16+BJ6FN	SCREW,STEEL	
457	XQN2+BF5FN	SCREW,STEEL	
519	XQN16+BF4FN	SCREW,STEEL	
533	XQN16+BJ4FN	SCREW,STEEL	
536	XQN16+AJ4FN	SCREW,STEEL	
538	XQN14+BJ4FN	SCREW,STEEL	
544	XQN16+BF2FN	SCREW,STEEL	
545	XQN16+BF25FN	SCREW,STEEL	
546	LSHD0088	SCREW,STEEL	
701	LSSC0827	FRONT EARTH PLATE A	
702	LSMG0136	MIC DAMPER	
703	LSJB8325	FRONT FPC	
704	B3RAB0000024	INFRARED RECEIVER	
705	LSEK0684	ELECTRIC CONDENSOR MICROPHONE UNIT	
711	LSSC0821	HEAT SINK ANGLE	
712	LSSC0822	MAIN SHIELD PLATE	
713	LSSC0830	HEAT SINK SHEET	
714	LSSC0896	HEAT CONDUCT SHEET	
721	K1NA09E00063	SD UNIT	VDR-D200PL
E10	LSEP8314A1	MAIN P.C.B.	RTL
E20	LSEP8316A1	FRONT P.C.B.	VDR-D100PL
E20	LSEP8316B1	FRONT P.C.B.	RTLVDR-D200PL
E30	LSEP8317A1	JACK P.C.B.	RTL
E40	LSEP8318A1	LIQUID CRYSTAL DISPLAY BACKLIGHT P.C.B. NR	
E50	LSEQ0804	CCD P.C.B. NR	
E60	LSEP8339A1	SIDE R P.C.B.	RTLVDR-D100PL
E60	LSEP8339B1	SIDE R P.C.B.	RTL VDR-D200PL
E61	LSEP8340A1	OPEN SWITCH P.C.B.	RTL

SERVICE FIXTURES AND TOOLS

Ref. No.	Part No.	Part Name & Description	Remarks
	LSVQ0028	PLIER FOR NON ZIF CONNECTOR	
	LSUQ0050	GREASE	
	VUVS0007	EXTENSION CABLE 12P	
	VFKW0124A	EXTENSION CABLE 14P	
	LSUA0020	EXTENSION CABLE 20P	
	VUVS0012	EXTENSION CABLE 22P	
	LSUA0059	EXTENSION CABLE 60P	
	VFK1164LBX1	LIGHT BOX	SPC
	VFK1164TCM02	INFINITY LENS (WITH FOCUS CHART)	SPC
	VFK1164TAR58	ATTACHMENT RING (58mm)	SPC
	VFK1164TAR55	ATTACHMENT RING (55mm)	SPC
	VFK1164TAR52	ATTACHMENT RING (52mm)	SPC
	VFK1164TAR49	ATTACHMENT RING (49mm)	SPC
	VFK1164TAR46	ATTACHMENT RING (46mm)	SPC
	VFK1164TAR43	ATTACHMENT RING (43mm)	SPC
	VFK1164TAR37	ATTACHMENT RING (37mm)	SPC
	VFK1164TAR3A	ATTACHMENT RING (30.5mm)	SPC
	VFK1164TAR27	ATTACHMENT RING (27mm)	SPC
	VFK1164TFCT2	COLOR CONVERSION FILTER (C14)	SPC
	VFK1164TFWC2	WHITE CHART	SPC
	VFK1164TFCB2	COLOR BAR CHART	SPC
	VFK1164TFGS2	GRAY SCALE CHART	SPC

16.2. ELECTRICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. All parts are supplied from PSEC.

PRINTED CIRCUIT BOARD ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Remarks
E10	LSEP8314A1	MAIN P.C.B.	E.S.D. RTL
E20	LSEP8316A1	FRONT P.C.B.	RTL VDR-D100PL
E20	LSEP8316B1	FRONT P.C.B.	RTL VDR-D200PL
E30	LSEP8317A1	JACK P.C.B.	RTL
E40	LSEP8318A1	LIQUID CRYSTAL DISPLAY BACKLIGHT P.C.B. NR	
E50	LSEQ0804	CCD P.C.B. NR	
E60	LSEP8339A1	SIDE R P.C.B.	RTL VDR-D100PL
E60	LSEP8339B1	SIDE R P.C.B.	RTL VDR-D200PL
E61	LSEP8340A1	OPEN SWITCH P.C.B.	RTL

16.2.1. MAIN P.C.B.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC301	C0CBCBC00130	IC, LINEAR	
IC302	MN52A4	IC, LOGIC	E.S.D.
IC303	H1A3605B0003	CRYSTAL OSCILLATOR	
IC304	C1AB00002039	IC, LOGIC	E.S.D.
or IC304	MN31121SASE1	IC, LOGIC	E.S.D.
IC501	C1AB00001725	IC, LINEAR	
IC701	C1AB00001877	IC, LINEAR	
IC1001	C0DBAZZ00129	IC, LINEAR	
IC3001	MN2WS0056SP	IC, LINEAR	E.S.D. CSP
IC3201	LSSK0074	IC, FLASH MEMORY	E.S.D. CSP
IC3202	C3ABSJ000001	IC, D RAM	E.S.D. CSP
IC3301	C1AB00001894	IC, LOGIC	E.S.D.
IC6001	C2DBLK000122	IC, 32BIT MICROCONTROLLER *Refer to “IC6001 REPLACEMENT NOTE” in SERVICE NOTES.	E.S.D. CSP
IC6002	C1ZBZ0002602	IC, CMOS GATE ARRAYS	E.S.D.
IC6003	C0EBE0000240	IC, LOGIC	E.S.D.
IC6004	C3EBGG000013	IC, 16K EEP ROM	E.S.D.
IC8001	AN12531A-VB	IC, LINEAR	
IC8002	C0CBCAC00322	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q701	B1ADMB000004	TRANSISTOR SI PNP CHIP	
Q1001	UNR9112J08	TRANSISTOR SI PNP CHIP	
or Q1001	B1GDCFLL0019	TRANSISTOR SI PNP CHIP	
or Q1001	B1GDCFLL0020	TRANSISTOR SI PNP CHIP	
Q1002	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q1002	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1003	UNR911TJ08	TRANSISTOR SI PNP CHIP	
or Q1003	B1GDCFLM0005	TRANSISTOR SI PNP CHIP	
Q1009	B1DHCC000038	TRANSISTOR FET CHIP	
Q1010	B1DHCC000034	TRANSISTOR FET CHIP	
Q1011	B1DHBC000005	TRANSISTOR FET CHIP	
Q1013	B1DHBC000005	TRANSISTOR FET CHIP	
Q1015	B1DHBC000008	TRANSISTOR FET CHIP	
Q1016	B1DHBC000008	TRANSISTOR FET CHIP	
Q1017	B1DFBC000007	TRANSISTOR FET CHIP	
Q1018	B1DFCG000011	TRANSISTOR FET CHIP	
Q1019	B1DFBC000007	TRANSISTOR FET CHIP	
Q1020	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q1020	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1021	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q1021	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1022	2SB1462J08	TRANSISTOR SI PNP CHIP	
or Q1022	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q1023	2SB1218A0L	TRANSISTOR SI PNP CHIP	
or Q1023	B1ADCF000063	TRANSISTOR SI PNP CHIP	
or Q1023	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q1024	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q1024	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1026	XP0431400L	TRANSISTOR COMPLX CMP SI NPN/PNP CHIP	
Q1030	UNR921TJ08	TRANSISTOR SI NPN CHIP	
or Q1030	B1GBCFLN0003	TRANSISTOR SI NPN CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
Q1031	UNR911TJ08	TRANSISTOR SI PNP CHIP	
or Q1031	B1GDCFLM0005	TRANSISTOR SI PNP CHIP	
Q1032	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q1032	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1035	2SB1462J08	TRANSISTOR SI PNP CHIP	
or Q1035	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q1036	UNR921TJ08	TRANSISTOR SI NPN CHIP	
or Q1036	B1GBCFLN0003	TRANSISTOR SI NPN CHIP	
Q1037	UNR9213J08	TRANSISTOR SI NPN CHIP	
or Q1037	B1GBCFNN0029	TRANSISTOR SI NPN CHIP	
or Q1037	B1GBCFNN0030	TRANSISTOR SI NPN CHIP	
Q1040	UNR9114J08	TRANSISTOR SI PNP CHIP	
or Q1040	B1GDCFJN0017	TRANSISTOR SI PNP CHIP	
Q1041	UNR911TJ08	TRANSISTOR SI PNP CHIP	
or Q1041	B1GDCFLM0005	TRANSISTOR SI PNP CHIP	
Q1042	UNR9114J08	TRANSISTOR SI PNP CHIP	
or Q1042	B1GDCFJN0017	TRANSISTOR SI PNP CHIP	
Q1043	UNR9213J08	TRANSISTOR SI NPN CHIP	
or Q1043	B1GBCFNN0029	TRANSISTOR SI NPN CHIP	
or Q1043	B1GBCFNN0030	TRANSISTOR SI NPN CHIP	
Q1044	UNR921TJ08	TRANSISTOR SI NPN CHIP	
or Q1044	B1GBCFLN0003	TRANSISTOR SI NPN CHIP	
Q3001	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q3001	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q3002	UNR9213J08	TRANSISTOR SI NPN CHIP	
or Q3002	B1GBCFNN0029	TRANSISTOR SI NPN CHIP	
or Q3002	B1GBCFNN0030	TRANSISTOR SI NPN CHIP	
Q6001	UNR9213J08	TRANSISTOR SI NPN CHIP	
or Q6001	B1GBCFNN0029	TRANSISTOR SI NPN CHIP	
or Q6001	B1GBCFNN0030	TRANSISTOR SI NPN CHIP	
Q6002	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6002	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6003	UNR9115J08	TRANSISTOR SI PNP CHIP	
or Q6003	B1GDCFJA0015	TRANSISTOR SI PNP CHIP	
or Q6003	B1GDCFJA0016	TRANSISTOR SI PNP CHIP	
Q6005	UNR9115J08	TRANSISTOR SI PNP CHIP	
or Q6005	B1GDCFJA0015	TRANSISTOR SI PNP CHIP	
or Q6005	B1GDCFJA0016	TRANSISTOR SI PNP CHIP	
Q6006	UNR9115J08	TRANSISTOR SI PNP CHIP	
or Q6006	B1GDCFJA0015	TRANSISTOR SI PNP CHIP	
or Q6006	B1GDCFJA0016	TRANSISTOR SI PNP CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D301	MA2S111008	DIODE SI CHIP	
or D301	B0ACCK000003	DIODE SI CHIP	
or D301	MA2S11100L	DIODE SI CHIP	
D302	MA2S728008	DIODE SI CHIP	
or D302	B0JCDD000002	DIODE SI CHIP	
or D302	MA2S72800L	DIODE SI CHIP	
D1001	MAZ81000HL	DIODE ZENER CHIP 10V	
D1002	MA2S111008	DIODE SI CHIP	
or D1002	B0ACCK000003	DIODE SI CHIP	
or D1002	MA2S11100L	DIODE SI CHIP	
D1006	B0JDCD000002	DIODE SI CHIP	
D1009	B0JCMD000023	DIODE SI CHIP	
D1010	B0JCMD000023	DIODE SI CHIP	
D1020	MA2S111008	DIODE SI CHIP	
or D1020	B0ACCK000003	DIODE SI CHIP	
or D1020	MA2S11100L	DIODE SI CHIP	
D1021	MA2S111008	DIODE SI CHIP	
or D1021	B0ACCK000003	DIODE SI CHIP	
or D1021	MA2S11100L	DIODE SI CHIP	
D1022	MAZ80750ML	DIODE ZENER CHIP 7.5V	
D1023	MAZ80620HL	DIODE ZENER CHIP 6.2V	
D1024	MAZ81300ML	DIODE ZENER CHIP 13V	
D1025	MA2S111008	DIODE SI CHIP	
or D1025	B0ACCK000003	DIODE SI CHIP	
or D1025	MA2S11100L	DIODE SI CHIP	
D1026	MA2S111008	DIODE SI CHIP	
or D1026	B0ACCK000003	DIODE SI CHIP	
or D1026	MA2S11100L	DIODE SI CHIP	
D1027	MA3S132E0L	DIODE SI CHIP	
D1101	B0BC01200021	DIODE ZENER CHIP 12V	
D6001	MA2S728008	DIODE SI CHIP	
or D6001	B0JCDD000002	DIODE SI CHIP	
or D6001	MA2S72800L	DIODE SI CHIP	
D6003	MA2S728008	DIODE SI CHIP	
or D6003	B0JCDD000002	DIODE SI CHIP	
or D6003	MA2S72800L	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R305	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R306	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R307	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R308	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R309	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R501	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R504	D0GA333JA015	MGF CHIP 1/16W 33K	
R702	D0GA103JA015	MGF CHIP 1/16W 10K	
R704	D0GA103JA015	MGF CHIP 1/16W 10K	
R705	D0GA102JA015	MGF CHIP 1/16W 1K	
R706	D0GA393JA015	MGF CHIP 1/16W 39K	
R707	D0GA223JA015	MGF CHIP 1/16W 22K	
R708	D0GA393JA015	MGF CHIP 1/16W 39K	
R709	ERJ2GEJ184X	MGF CHIP 1/16W 180K	
R710	D0GA153JA015	MGF CHIP 1/16W 15K	
R711	D0GA223JA015	MGF CHIP 1/16W 22K	
R712	ERJ2GEJ184X	MGF CHIP 1/16W 180K	
R713	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R714	D0GA103JA015	MGF CHIP 1/16W 10K	
R715	D0GA103JA015	MGF CHIP 1/16W 10K	
R716	D0GA473JA015	MGF CHIP 1/16W 47K	
R718	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R719	ERJ2GEJ184X	MGF CHIP 1/16W 180K	
R721	ERJ2GEJ334X	MGF CHIP 1/16W 330K	
R722	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R723	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R724	ERJ2GEJ151X	MGF CHIP 1/16W 150	
R726	D0GA103JA015	MGF CHIP 1/16W 10K	
R1001	D0GA103JA015	MGF CHIP 1/16W 10K	
R1002	D0GA103JA015	MGF CHIP 1/16W 10K	
R1003	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1004	D0GA103JA015	MGF CHIP 1/16W 10K	
R1005	D1BA4701A034	MGF CHIP 1/16W 4.7K	
R1006	D1BA4701A034	MGF CHIP 1/16W 4.7K	
R1007	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R1008	D0GA102JA015	MGF CHIP 1/16W 1K	
R1009	D0GA102JA015	MGF CHIP 1/16W 1K	
R1010	ERA3YED822V	MGF CHIP 1/16W 8.2K	
R1011	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1012	D0GA102JA015	MGF CHIP 1/16W 1K	
R1013	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1014	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R1015	D0GA333JA015	MGF CHIP 1/16W 33K	
R1016	D0GA223JA015	MGF CHIP 1/16W 22K	
R1017	D0GA102JA015	MGF CHIP 1/16W 1K	
R1018	D0GA102JA015	MGF CHIP 1/16W 1K	
R1019	D0GA182JA015	MGF CHIP 1/16W 1.8K	
R1020	ERJ2RKD390X	MGF CHIP 1/16W 39	
R1021	D1BA9101A034	MGF CHIP 1/16W 9.1K	
R1022	ERJ2GEJ151X	MGF CHIP 1/16W 150	
R1023	D1BA1201A034	MGF CHIP 1/16W 1.2K	
R1024	D1BA2001A034	MGF CHIP 1/16W 2K	
R1025	D0GA102JA015	MGF CHIP 1/16W 1K	
R1026	D0GA473JA015	MGF CHIP 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R1027	D0GA183JA015	MGF CHIP 1/16W 18K	
R1028	D0GA562JA015	MGF CHIP 1/16W 5.6K	
R1029	ERA3YKD683V	MGF CHIP 1/16W 68K	
R1031	D1BA8201A034	MGF CHIP 1/16W 8.2K	
R1032	D1BA1201A034	MGF CHIP 1/16W 1.2K	
R1033	D1BA2001A034	MGF CHIP 1/16W 2K	
R1034	D1BA5601A034	MGF CHIP 1/16W 5.6K	
R1035	D1BA3301A034	MGF CHIP 1/16W 3.3K	
R1036	D1BA2700A034	MGF CHIP 1/16W 270	
R1038	ERJ2RKD390X	MGF CHIP 1/16W 39	
R1040	D1BA5101A034	MGF CHIP 1/16W 5.1K	
R1041	D1BA3901A034	MGF CHIP 1/16W 3.9K	
R1042	ERJ2RKD820X	MGF CHIP 1/16W 82	
R1044	D0GA183JA015	MGF CHIP 1/16W 18K	
R1045	D0GA223JA015	MGF CHIP 1/16W 22K	
R1046	D0GA223JA015	MGF CHIP 1/16W 22K	
R1050	D1BA3001A034	MGF CHIP 1/16W 3K	
R1051	D1BA6201A034	MGF CHIP 1/16W 6.2K	
R1052	D1BA3900A034	MGF CHIP 1/16W 390	
R1060	D1BA2701A034	MGF CHIP 1/16W 2.7K	
R1070	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R1071	D1BA2702A034	MGF CHIP 1/16W 27K	
R1072	D1BA3001A034	MGF CHIP 1/16W 3K	
R1073	D1BA1500A034	MGF CHIP 1/16W 150	
R1074	D0GA223JA015	MGF CHIP 1/16W 22K	
R1075	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1076	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1078	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1079	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R1080	D0GA473JA015	MGF CHIP 1/16W 47K	
R1081	D0GA223JA015	MGF CHIP 1/16W 22K	
R1082	ERJ2GEJ824X	MGF CHIP 1/16W 820K	
R1083	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R1084	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1091	D0GA473JA015	MGF CHIP 1/16W 47K	
R1092	D0GA473JA015	MGF CHIP 1/16W 47K	
R1094	D0GA473JA015	MGF CHIP 1/16W 47K	
R1095	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R1096	D0GA473JA015	MGF CHIP 1/16W 47K	
R1098	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R3001	ERJ2RKD390X	MGF CHIP 1/16W 39	
R3002	ERJ2RKD390X	MGF CHIP 1/16W 39	
R3005	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R3006	ERJ2RHD152X	MGF CHIP 1/16W 1.5K	
R3008	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3009	J0JDC0000081	FILTER FOR EMI / EMC (BEADS CORES)	
R3010	D0GA473JA015	MGF CHIP 1/16W 47K	
R3011	D0GA473JA015	MGF CHIP 1/16W 47K	
R3012	D0GA473JA015	MGF CHIP 1/16W 47K	
R3013	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R3014	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3015	D0GA102JA015	MGF CHIP 1/16W 1K	
R3016	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3017	D0GA103JA015	MGF CHIP 1/16W 10K	

Ref. No.	Part No.	Part Name & Description	Remarks
R3022	D0GA103JA015	MGF CHIP 1/16W 10K	
R3023	D0GA103JA015	MGF CHIP 1/16W 10K	
R3024	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3026	ERJ2GEJ100X	MGF CHIP 1/16W 10	
R3027	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R3028	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R3029	D0GA473JA015	MGF CHIP 1/16W 47K	
R3030	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R3031	D0GA102JA015	MGF CHIP 1/16W 1K	
R3032	D0GA103JA015	MGF CHIP 1/16W 10K	
R3033	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R3034	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3035	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3036	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3037	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3038	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3039	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3040	D0GA473JA015	MGF CHIP 1/16W 47K	
R3041	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3042	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R3043	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3044	D0GA103JA015	MGF CHIP 1/16W 10K	
R3045	D0GA103JA015	MGF CHIP 1/16W 10K	
R3046	D0GA103JA015	MGF CHIP 1/16W 10K	
R3047	ERJ2RHD361X	MGF CHIP 1/16W 360	
R3048	ERJ2RHD361X	MGF CHIP 1/16W 360	
R3049	ERJ2RHD333X	MGF CHIP 1/16W 33K	
R3050	ERJ2RHD391X	MGF CHIP 1/16W 390	
R3051	ERJ2RHD391X	MGF CHIP 1/16W 390	
R3052	ERJ2RHD391X	MGF CHIP 1/16W 390	
R3053	ERJ2RHD473X	MGF CHIP 1/16W 47K	
R3054	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R3055	ERJ2RHD183X	MGF CHIP 1/16W 18K	
R3056	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R3058	D0GA103JA015	MGF CHIP 1/16W 10K	
R3059	D0GA103JA015	MGF CHIP 1/16W 10K	
R3060	D0GA103JA015	MGF CHIP 1/16W 10K	
R3061	D0GA103JA015	MGF CHIP 1/16W 10K	
R3062	D0GA103JA015	MGF CHIP 1/16W 10K	
R3063	D0GA103JA015	MGF CHIP 1/16W 10K	
R3064	D0GA103JA015	MGF CHIP 1/16W 10K	
R3065	D0GA103JA015	MGF CHIP 1/16W 10K	
R3066	D0GA103JA015	MGF CHIP 1/16W 10K	
R3067	D0GA103JA015	MGF CHIP 1/16W 10K	
R3068	D0GA103JA015	MGF CHIP 1/16W 10K	
R3079	D0GA102JA015	MGF CHIP 1/16W 1K	
R3080	D0GA102JA015	MGF CHIP 1/16W 1K	
R3081	D0GA103JA015	MGF CHIP 1/16W 10K	
R3082	D0GA103JA015	MGF CHIP 1/16W 10K	
R3083	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R3084	D0GA103JA015	MGF CHIP 1/16W 10K	
R3085	D0GA562JA015	MGF CHIP 1/16W 5.6K	
R3086	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R3087	D0GA103JA015	MGF CHIP 1/16W 10K	

Ref. No.	Part No.	Part Name & Description	Remarks
R3101	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3102	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3103	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3104	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3105	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3106	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3107	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3108	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3109	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3110	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3111	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3112	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3113	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3114	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3115	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3116	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3117	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3118	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3119	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3120	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3121	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3122	ERJ2GEJ220X	MGF CHIP 1/16W 22	
R3123	ERJ2GEJ220X	MGF CHIP 1/16W 22	
R3124	ERJ2GEJ820X	MGF CHIP 1/16W 82	
R3125	ERJ2GEJ220X	MGF CHIP 1/16W 22	
R3126	ERJ2GEJ330X	MGF CHIP 1/16W 33	
R3127	ERJ2GEJ820X	MGF CHIP 1/16W 82	
R3128	ERJ2GEJ820X	MGF CHIP 1/16W 82	
R3129	D0GA473JA015	MGF CHIP 1/16W 47K	
R3130	D0GA102JA015	MGF CHIP 1/16W 1K	
R3131	D0GA473JA015	MGF CHIP 1/16W 47K	
R3132	D0GA473JA015	MGF CHIP 1/16W 47K	
R3133	D0GA473JA015	MGF CHIP 1/16W 47K	
R3134	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3135	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R3137	D0GA103JA015	MGF CHIP 1/16W 10K	
R3138	D0GA473JA015	MGF CHIP 1/16W 47K	
R3139	D0GA473JA015	MGF CHIP 1/16W 47K	
R3201	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R3202	D0GA103JA015	MGF CHIP 1/16W 10K	
R3203	D0GA103JA015	MGF CHIP 1/16W 10K	
R3204	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3205	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3301	ERJ2RKD680X	MGF CHIP 1/16W 68	
R3302	ERJ2RKD680X	MGF CHIP 1/16W 68	
R3303	ERJ2RKD680X	MGF CHIP 1/16W 68	
R3304	D0GA103JA015	MGF CHIP 1/16W 10K	
R3312	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3314	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3315	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R3909	D0GA473JA015	MGF CHIP 1/16W 47K	
R3910	D0GA473JA015	MGF CHIP 1/16W 47K	
R3911	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R3912	ERJ2GEJ101X	MGF CHIP 1/16W 100	

Ref. No.	Part No.	Part Name & Description	Remarks
R3913	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3914	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3915	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3916	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3917	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3918	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3919	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3920	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3921	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R4501	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R4504	ERJ2GEJ561X	MGF CHIP 1/16W 560	
R4505	ERJ2GEJ561X	MGF CHIP 1/16W 560	
R4510	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6001	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6002	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6003	ERJ2GEJ331X	MGF CHIP 1/16W 330	
R6004	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6005	ERJ6GEYJ221V	MGF CHIP 1/10W 220	
R6006	ERJ6GEYJ221V	MGF CHIP 1/10W 220	
R6007	D0GA392JA015	MGF CHIP 1/16W 3.9K	
R6008	D0GA103JA015	MGF CHIP 1/16W 10K	
R6009	ERJ3GEY0R00V	MGF CHIP 1/16W 0 *Refer to “IC6001 REPLACEMENT NOTE” in SERVICE NOTES.	
R6010	ERJ3GEY0R00V	MGF CHIP 1/16W 0 *Refer to “IC6001 REPLACEMENT NOTE” in SERVICE NOTES.	
R6013	D0GA102JA015	MGF CHIP 1/16W 1K	
R6014	D0GA102JA015	MGF CHIP 1/16W 1K	
R6015	D0GA102JA015	MGF CHIP 1/16W 1K	
R6016	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R6017	D0GA183JA015	MGF CHIP 1/16W 18K	
R6018	D0GA183JA015	MGF CHIP 1/16W 18K	
R6019	D0GA273JA015	MGF CHIP 1/16W 27K	
R6020	D0GA273JA015	MGF CHIP 1/16W 27K	
R6021	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6022	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6023	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6025	D0GA102JA015	MGF CHIP 1/16W 1K	
R6027	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6028	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6029	ERJ3GEY0R00V	MGF CHIP 1/16W 0 *Refer to “IC6001 REPLACEMENT NOTE” in SERVICE NOTES.	
R6030	ERJ3GEY0R00V	MGF CHIP 1/16W 0 *Refer to “IC6001 REPLACEMENT NOTE” in SERVICE NOTES.	
R6031	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6032	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6033	D0GA102JA015	MGF CHIP 1/16W 1K	
R6034	D0GA393JA015	MGF CHIP 1/16W 39K	
R6035	D0GA473JA015	MGF CHIP 1/16W 47K	
R6036	D0GA102JA015	MGF CHIP 1/16W 1K	
R6037	D0GA473JA015	MGF CHIP 1/16W 47K	
R6039	D0GA473JA015	MGF CHIP 1/16W 47K	
R6040	D0GA152JA015	MGF CHIP 1/16W 1.5K	
R6041	D0GA102JA015	MGF CHIP 1/16W 1K	
R6042	D0GA473JA015	MGF CHIP 1/16W 47K	
R6043	D0GA473JA015	MGF CHIP 1/16W 47K	

[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name & Description	Remarks
R6045	D0GA102JA015	MGF CHIP 1/16W 1K	
R6046	D0GA102JA015	MGF CHIP 1/16W 1K	
R6047	D0GA102JA015	MGF CHIP 1/16W 1K	
R6048	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R6049	D0GA102JA015	MGF CHIP 1/16W 1K	
R6050	D0GA103JA015	MGF CHIP 1/16W 10K	
R6051	D0GA103JA015	MGF CHIP 1/16W 10K	
R6053	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6068	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6069	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6070	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R6071	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6072	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R6073	D0GA103JA015	MGF CHIP 1/16W 10K	
R6074	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6076	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6077	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6078	D0GA102JA015	MGF CHIP 1/16W 1K	
R6079	D0GA102JA015	MGF CHIP 1/16W 1K	
R6080	ERJ2RHD683X	MGF CHIP 1/16W 68K	
R6081	D0GA102JA015	MGF CHIP 1/16W 1K	
R6082	ERJ2RHD223X	MGF CHIP 1/16W 22K	
R6083	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6084	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6085	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6086	D0GA102JA015	MGF CHIP 1/16W 1K	
R6087	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6088	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6089	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6090	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6091	D0GA103JA015	MGF CHIP 1/16W 10K	
R6092	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6093	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6094	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6095	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6097	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R6099	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R6100	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R6101	D0GA102JA015	MGF CHIP 1/16W 1K	
R6102	D0GA102JA015	MGF CHIP 1/16W 1K	
R6109	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6110	D0GA123JA015	MGF CHIP 1/16W 12K	
R6111	D0GA273JA015	MGF CHIP 1/16W 27K	
R6112	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R6113	D0GA102JA015	MGF CHIP 1/16W 1K	
R6114	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6115	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6119	D0GA223JA015	MGF CHIP 1/16W 22K	
R6121	D0GA123JA015	MGF CHIP 1/16W 12K	
R6122	D0GA123JA015	MGF CHIP 1/16W 12K	
R6125	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6127	D0GA102JA015	MGF CHIP 1/16W 1K	
R6128	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6130	ERJ2GE0R00X	MGF CHIP 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R6131	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6134	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6137	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R8001	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8002	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8003	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8004	D0GA153JA015	MGF CHIP 1/16W 15K	
R8005	D0GA682JA015	MGF CHIP 1/16W 6.8K	
R8006	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8007	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8011	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R8012	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8013	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8014	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8015	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R8016	ERJ2GEJ101X	MGF CHIP 1/16W 100	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C301	F1H1A105A036	C CHIP 10V 1UF	
C303	F1H1A105A036	C CHIP 10V 1UF	
C304	F1G1A1040006	C CHIP 10V 0.1UF	
C305	F1G1A1040006	C CHIP 10V 0.1UF	
C307	F1H1C104A041	C CHIP 16V 0.1UF	
C308	F1G1A1040006	C CHIP 10V 0.1UF	
C311	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C312	F1H1C104A041	C CHIP 16V 0.1UF	
C314	F1K1A1060017	C CHIP 10V 10UF	
C315	F1K1C475A011	C CHIP 16V 4.7UF	
C316	F1G1A1040006	C CHIP 10V 0.1UF	
C317	F1K1A1060017	C CHIP 10V 10UF	
C318	F1G1H1020008	C CHIP 50V 1000PF	
C319	F1G1A1040006	C CHIP 10V 0.1UF	
C502	F1G1A1040006	C CHIP 10V 0.1UF	
C503	F1H1A105A036	C CHIP 10V 1UF	
C504	F1G1A1040006	C CHIP 10V 0.1UF	
C505	F1G1H1020008	C CHIP 50V 1000PF	
C506	F1G1A1040006	C CHIP 10V 0.1UF	
C509	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C510	F1G1A1040006	C CHIP 10V 0.1UF	
C512	F1G1A1040006	C CHIP 10V 0.1UF	
C513	F1G1A1040006	C CHIP 10V 0.1UF	
C514	F1G1A1040006	C CHIP 10V 0.1UF	
C701	F1H1A105A036	C CHIP 10V 1UF	
C702	F1H1A105A036	C CHIP 10V 1UF	
C703	F1H1A224A012	C CHIP 10V 0.22UF	
C704	F1H1A105A036	C CHIP 10V 1UF	
C705	F3F1A226A026	TANTALUM CHIP 10V 22UF	
C708	F1G1A1040006	C CHIP 10V 0.1UF	
C709	F1G1A473A014	C CHIP 10V 0.047UF	
C710	F1H1A105A036	C CHIP 10V 1UF	
C711	F1G1H1020008	C CHIP 50V 1000PF	
C712	F1G1A473A014	C CHIP 10V 0.047UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C713	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C714	F1G1C103A004	C CHIP 16V 0.01UF	
C715	ECJ0EB1H471K	C CHIP 50V 470PF	
C716	ECJ0EC1H101J	C CHIP 50V 100PF	
C717	F1H1A105A019	C CHIP 10V 1UF	
C718	F1G1E472A062	C CHIP 25V 4700PF	
C720	F1G1C103A004	C CHIP 16V 0.01UF	
C721	F1H1A105A019	C CHIP 10V 1UF	
C722	F1H1A105A036	C CHIP 10V 1UF	
C1001	F1J1C105A083	C CHIP 16V 1UF	
C1002	F1L1C106A007	C CHIP 16V 10UF	
C1003	F1J1C105A083	C CHIP 16V 1UF	
C1004	F1L1C106A007	C CHIP 16V 10UF	
C1005	F1H1C104A041	C CHIP 16V 0.1UF	
C1006	F1H1E273A050	C CHIP 25V 0.027UF	
C1007	F1H1C104A041	C CHIP 16V 0.1UF	
C1008	ECJ0EB1C822K	C CHIP 16V 8200PF	
C1009	ECJ1VB0J225K	C CHIP 6.3V 2.2UF	
C1010	F1G1E472A062	C CHIP 25V 4700PF	
C1011	ECJ0EC1H101J	C CHIP 50V 100PF	
C1012	F1G1E472A062	C CHIP 25V 4700PF	
C1013	F1G1C223A004	C CHIP 16V 0.022UF	
C1014	F1G1C223A004	C CHIP 16V 0.022UF	
C1015	F1G1C223A004	C CHIP 16V 0.022UF	
C1016	F1G1E472A062	C CHIP 25V 4700PF	
C1018	F1G1C103A004	C CHIP 16V 0.01UF	
C1019	F1G1H1020008	C CHIP 50V 1000PF	
C1020	F1J1C1050028	C CHIP 16V 1UF	
C1021	F1J1C1050028	C CHIP 16V 1UF	
C1022	F1G1A1040006	C CHIP 10V 0.1UF	
C1030	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1031	F1G1H1020008	C CHIP 50V 1000PF	
C1033	F1H1A105A019	C CHIP 10V 1UF	
C1035	F1H1A105A019	C CHIP 10V 1UF	
C1037	F1H1A105A019	C CHIP 10V 1UF	
C1038	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C1039	ECJ2VF1C105Z	C CHIP 16V 1UF	
C1040	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C1045	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1047	ECJ0EB1H471K	C CHIP 50V 470PF	
C1050	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1051	F1G1H1020008	C CHIP 50V 1000PF	
C1052	F1H1A105A036	C CHIP 10V 1UF	
C1053	ECJ2VF1C105Z	C CHIP 16V 1UF	
C1060	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1061	F1G1H1020008	C CHIP 50V 1000PF	
C1062	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C1063	F1H1A105A019	C CHIP 10V 1UF	
C1064	F1H1A105A036	C CHIP 10V 1UF	
C1065	F1H1A105A036	C CHIP 10V 1UF	
C1070	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1071	F1G1H1020008	C CHIP 50V 1000PF	
C1072	F1H1A105A019	C CHIP 10V 1UF	
C1073	F1J1A1050004	C CHIP 10V 1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C1074	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C1080	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C1081	F1G1H1020008	C CHIP 50V 1000PF	
C1085	ECJ2VF1C105Z	C CHIP 16V 1UF	
C1086	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C1090	F1J1C1050028	C CHIP 16V 1UF	
C1091	F1J1C1050028	C CHIP 16V 1UF	
C1092	F1G1H152A496	C CHIP 50V 1500PF	
C1093	F1J1C2250003	C CHIP 16V 2.2UF	
C1094	F1J1C2250003	C CHIP 16V 2.2UF	
C1095	F1J1C1050028	C CHIP 16V 1UF	
C1096	F1H1C104A041	C CHIP 16V 0.1UF	
C1097	F1H1A105A036	C CHIP 10V 1UF	
C1098	F1G1A1040006	C CHIP 10V 0.1UF	
C1099	ECJ1VB1C474K	C CHIP 16V 0.47UF	
C1101	ECJ0EF1H103Z	C CHIP 50V 0.01UF	
C1102	ECJ0EF1H103Z	C CHIP 50V 0.01UF	
C3001	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C3002	F3F0G476A030	TANTALUM CHIP 4V 47UF	
C3003	F1J0J4750005	C CHIP 6.3V 4.7UF	
C3004	F1J0J4750005	C CHIP 6.3V 4.7UF	
C3005	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C3011	F1G1A1040006	C CHIP 10V 0.1UF	
C3012	F1G1C103A004	C CHIP 16V 0.01UF	
C3013	F1G1C103A004	C CHIP 16V 0.01UF	
C3014	F1G1A1040006	C CHIP 10V 0.1UF	
C3015	F1G1C103A004	C CHIP 16V 0.01UF	
C3016	F1G1A1040006	C CHIP 10V 0.1UF	
C3017	F1G1C103A004	C CHIP 16V 0.01UF	
C3018	F1G1A1040006	C CHIP 10V 0.1UF	
C3019	F1G1C103A004	C CHIP 16V 0.01UF	
C3020	F1G1A1040006	C CHIP 10V 0.1UF	
C3021	F1G1C103A004	C CHIP 16V 0.01UF	
C3022	F1G1C103A004	C CHIP 16V 0.01UF	
C3023	F1G1A1040006	C CHIP 10V 0.1UF	
C3024	F1G1A1040006	C CHIP 10V 0.1UF	
C3025	F1G1A1040006	C CHIP 10V 0.1UF	
C3026	F1G1C103A004	C CHIP 16V 0.01UF	
C3027	F1G1C103A004	C CHIP 16V 0.01UF	
C3028	F1G1A1040006	C CHIP 10V 0.1UF	
C3029	F1G1C103A004	C CHIP 16V 0.01UF	
C3030	F1G1C103A004	C CHIP 16V 0.01UF	
C3031	F1G1A1040006	C CHIP 10V 0.1UF	
C3032	F1G1A1040006	C CHIP 10V 0.1UF	
C3033	F1G1A1040006	C CHIP 10V 0.1UF	
C3034	F1G1C103A004	C CHIP 16V 0.01UF	
C3035	F1G1C103A004	C CHIP 16V 0.01UF	
C3036	F1G1A1040006	C CHIP 10V 0.1UF	
C3037	F1G1A1040006	C CHIP 10V 0.1UF	
C3038	F1G1C103A004	C CHIP 16V 0.01UF	
C3039	F1G1A1040006	C CHIP 10V 0.1UF	
C3040	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C3041	F1G1C103A004	C CHIP 16V 0.01UF	
C3042	F1G1A1040006	C CHIP 10V 0.1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C3043	F1G1C103A004	C CHIP 16V 0.01UF	
C3044	F1G1A1040006	C CHIP 10V 0.1UF	
C3045	F1G1A1040006	C CHIP 10V 0.1UF	
C3046	F1G1C103A004	C CHIP 16V 0.01UF	
C3047	F1G1A1040006	C CHIP 10V 0.1UF	
C3048	F1G1C103A004	C CHIP 16V 0.01UF	
C3049	F1G1C103A004	C CHIP 16V 0.01UF	
C3050	F1G1A1040006	C CHIP 10V 0.1UF	
C3051	F1J0J4750005	C CHIP 6.3V 4.7UF	
C3052	F1G1A1040006	C CHIP 10V 0.1UF	
C3053	F1G1C103A004	C CHIP 16V 0.01UF	
C3054	F1J0J4750005	C CHIP 6.3V 4.7UF	
C3055	F1G1A1040006	C CHIP 10V 0.1UF	
C3056	F1G1C103A004	C CHIP 16V 0.01UF	
C3057	F1G1H100A544	C CHIP 50V 10PF	
C3058	F1G1H100A544	C CHIP 50V 10PF	
C3059	F1G1A1040006	C CHIP 10V 0.1UF	
C3060	F1J1A1050004	C CHIP 10V 1UF	
C3061	F1G1C103A004	C CHIP 16V 0.01UF	
C3062	F1G1A1040006	C CHIP 10V 0.1UF	
C3063	F1G1C103A004	C CHIP 16V 0.01UF	
C3064	F1G1C103A004	C CHIP 16V 0.01UF	
C3065	F1G1A1040006	C CHIP 10V 0.1UF	
C3066	F1G1C103A004	C CHIP 16V 0.01UF	
C3067	F1J1A106A023	C CHIP 10V 10UF	
C3068	F1G1C103A004	C CHIP 16V 0.01UF	
C3201	F3F0G476A030	TANTALUM CHIP 4V 47UF	
C3203	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C3204	F1G1C103A004	C CHIP 16V 0.01UF	
C3205	F1G1C103A004	C CHIP 16V 0.01UF	
C3206	F1G1A1040006	C CHIP 10V 0.1UF	
C3207	F1G1C103A004	C CHIP 16V 0.01UF	
C3208	F1G1A1040006	C CHIP 10V 0.1UF	
C3209	F1G1C103A004	C CHIP 16V 0.01UF	
C3210	F1J1A106A023	C CHIP 10V 10UF	
C3301	F1G1C103A004	C CHIP 16V 0.01UF	
C3302	F1H1A105A036	C CHIP 10V 1UF	
C3303	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C3304	F1G1A1040006	C CHIP 10V 0.1UF	
C3305	F1H1C104A041	C CHIP 16V 0.1UF	
C3306	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C3307	F1G1A1040006	C CHIP 10V 0.1UF	
C3308	F1H1A105A036	C CHIP 10V 1UF	
C3309	F3G0J107A017	TANTALUM CHIP 6.3V 100UF	
C3310	F1G1C103A004	C CHIP 16V 0.01UF	
C3311	F3G0J107A017	TANTALUM CHIP 6.3V 100UF	
C3312	F1H1A105A036	C CHIP 10V 1UF	
C3315	F1G1A1040006	C CHIP 10V 0.1UF	
C4502	F1G1A1040006	C CHIP 10V 0.1UF	
C4504	F1G1A1040006	C CHIP 10V 0.1UF	
C4505	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C4509	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C4510	F1G1C103A004	C CHIP 16V 0.01UF	
C4511	F1H1A105A036	C CHIP 10V 1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C4512	F1H1A105A036	C CHIP 10V 1UF	
C4513	F1H1A224A012	C CHIP 10V 0.22UF	
C4518	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C4519	F1G1A1040006	C CHIP 10V 0.1UF	
C4520	F1J1A2250007	C CHIP 10V 2.2UF	
C6001	F1H1A105A036	C CHIP 10V 1UF	
C6004	F1G1C103A004	C CHIP 16V 0.01UF	
C6005	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C6006	F1G1A1040006	C CHIP 10V 0.1UF	
C6007	F1H1A105A036	C CHIP 10V 1UF	
C6008	F1G1C103A004	C CHIP 16V 0.01UF	
C6009	F1H1C104A041	C CHIP 16V 0.1UF	
C6010	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C6012	F1G1C103A004	C CHIP 16V 0.01UF	
C6013	ECJ0EB1E101K	C CHIP 25V 100PF	
C6014	F1H1C104A041	C CHIP 16V 0.1UF	
C6015	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C6017	F1G1C103A004	C CHIP 16V 0.01UF	
C6018	F1G1H120A542	C CHIP 50V 12PF	
C6019	F1G1H120A542	C CHIP 50V 12PF	
C6020	F1G1C103A004	C CHIP 16V 0.01UF	
C6021	F1G1C103A004	C CHIP 16V 0.01UF	
C6022	F1G1C103A004	C CHIP 16V 0.01UF	
C6025	F1G1C103A004	C CHIP 16V 0.01UF	
C6026	F1G1C103A004	C CHIP 16V 0.01UF	
C6027	F1G1C103A004	C CHIP 16V 0.01UF	
C6029	F1G1C103A004	C CHIP 16V 0.01UF	
C6030	F1G1C103A004	C CHIP 16V 0.01UF	
C6031	F1G1C103A004	C CHIP 16V 0.01UF	
C6032	F1G1C103A004	C CHIP 16V 0.01UF	
C6033	F1G1C103A004	C CHIP 16V 0.01UF	
C6035	F1G1C103A004	C CHIP 16V 0.01UF	
C8001	F1G1A1040006	C CHIP 10V 0.1UF	
C8002	F1G1A1040006	C CHIP 10V 0.1UF	
C8003	F1G1A1040006	C CHIP 10V 0.1UF	
C8004	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C8005	F1H1C104A041	C CHIP 16V 0.1UF	
C8006	F1H1C104A041	C CHIP 16V 0.1UF	
C8007	F1H1C104A041	C CHIP 16V 0.1UF	
C8008	F1G1C103A004	C CHIP 16V 0.01UF	
C8009	F1H1C104A041	C CHIP 16V 0.1UF	
C8010	F1H1A105A036	C CHIP 10V 1UF	
C8011	F1J1C1050028	C CHIP 16V 1UF	
C8012	F1J1C1050028	C CHIP 16V 1UF	
C8013	F1J1A2250007	C CHIP 10V 2.2UF	
C8014	F1J1A2250007	C CHIP 10V 2.2UF	
C8015	F1H1C104A041	C CHIP 16V 0.1UF	
C8016	F1H1C104A041	C CHIP 16V 0.1UF	
C8017	F1H1C104A041	C CHIP 16V 0.1UF	
C8018	ECJ0EC1H121J	C CHIP 50V 120PF	
C8019	ECJ0EC1H121J	C CHIP 50V 120PF	
C8020	ECJ0EC1H121J	C CHIP 50V 120PF	
C8022	F1H1A105A036	C CHIP 10V 1UF	
C8023	F1H1A105A036	C CHIP 10V 1UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L305	G1C100KA0031	COIL CHIP 10UH	
L306	G1C100KA0031	COIL CHIP 10UH	
L501	G1C100K00020	COIL CHIP 10UH	
L1001	J0JHC0000018	EMI FILTER CHIP	
L1002	J0JHC0000018	EMI FILTER CHIP	
L1009	G1C330MA0209	COIL CHIP 33UH	
L1010	G1C220MA0209	COIL CHIP 22UH	
L1011	G1C4R7MA0031	COIL CHIP 4.7UH	
L1012	G1C100K00020	COIL CHIP 10UH	
L1013	D1JBR175A008	RESISTOR FUSE 24V 0.63A	
L1014	G1C2R2MA0203	COIL CHIP 2.2UH	
L1015	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
L1020	G1C330ZA0050	COIL CHIP 33UH	
L1021	G1C4R7MA0031	COIL CHIP 4.7UH	
L1022	G1C2R2MA0203	COIL CHIP 2.2UH	
L1030	G1C220ZA0050	COIL CHIP 22UH	
L1031	D1JBR175A008	RESISTOR FUSE 24V 0.63A	
L1032	G1C100K00020	COIL CHIP 10UH	
L1033	G1C4R7MA0031	COIL CHIP 4.7UH	
L1040	G1C680Z00005	COIL CHIP 68UH	
L1041	G1C4R7MA0031	COIL CHIP 4.7UH	
L1042	G1C4R7MA0031	COIL CHIP 4.7UH	
L1050	G1C100MA0209	COIL CHIP 10UH	
L1051	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
L1052	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
L1060	G1C470KA0031	COIL CHIP 47UH	
L1061	G1C470KA0031	COIL CHIP 47UH	
L1062	G1C470KA0031	COIL CHIP 47UH	
L1101	J0JHC0000054	BEADS CORE	
L1102	J0JHC0000054	BEADS CORE	
L3001	J0JBC0000027	FERRITE BEAD CHIP	
L3002	J0JBC0000027	FERRITE BEAD CHIP	
L3004	G1C100KA0031	COIL CHIP 10UH	
L3005	G1C100KA0031	COIL CHIP 10UH	
L3006	G1C100KA0031	COIL CHIP 10UH	
L3007	G1C100KA0031	COIL CHIP 10UH	
L3201	J0JBC0000027	FERRITE BEAD CHIP	
L3202	J0JHC0000078	FILTER FOR EMI / EMC	
L3301	G1C100KA0031	COIL CHIP 10UH	
L3302	G1C100KA0031	COIL CHIP 10UH	
L4501	J0JBC0000027	FERRITE BEAD CHIP	
L4502	G1C470MA0031	COIL CHIP 47UH	
L4503	G1C100KA0031	COIL CHIP 10UH	
L4504	G1C100KA0031	COIL CHIP 10UH	
L6001	G1C100KA0031	COIL CHIP 10UH	
L8001	G1C100KA0031	COIL CHIP 10UH	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X3001	H0J120500042	CRYSTAL OSCILLATOR	
X6001	H0J900400002	CRYSTAL OSCILLATOR	
X6002	H0J327200115	CRYSTAL OSCILLATOR	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
B1	K1KB60AA0021	CONNECTOR 60P	
B2	K1KB20AA0094	CONNECTOR 20P	
B3	K1KA50AA0503	CONNECTOR 50P	
P1	K1KA09AA0051	CONNECTOR 9P	

FPC CONNECTORS

Ref. No.	Part No.	Part Name & Description	Remarks
FP1	K1MN22AA0018	CONNECTOR 22P	
FP2	K1MN12BA0089	CONNECTOR 12P	
FP3	K1MN20BA0091	CONNECTOR 20P	
FP4	K1MN30AA0018	CONNECTOR 30P	
FP5	K1MN16A00077	CONNECTOR 16P	
FP301	K1MN14A00088	CONNECTOR 14P	
FP701	K1MN22A00065	CONNECTOR 22P	

FUSE & PROTECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
IP1	K5H2022A0008	IC PROTECTOR CHIP 32V 2A	⚠
IP2	ERBSE2R00U	IC PROTECTOR CHIP 32V 2A	⚠

TRANSFORMER

Ref. No.	Part No.	Part Name & Description	Remarks
T1001	G5DYA0000094	TRANSFORMER SWITCHING	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
545	XQN16+BF25FN	SCREW,STEEL	
711	LSSC0821	HEAT SINK ANGLE	
712	LSSC0822	MAIN SHIELD PLATE	
713	LSSC0830	HEAT SINK SHEET	
714	LSSC0896	HEAT CONDUCT SHEET	

16.2.2. FRONT P.C.B.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC4801	C0ABBB000369	IC, LINEAR	
or IC4801	C0ABBB000262	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q4301	2SD1819ARL	TRANSISTOR SI NPN CHIP	VDR-D200PL
Q4302	2SD1819ARL	TRANSISTOR SI NPN CHIP	VDR-D200PL
Q4305	2SB1218ARL	TRANSISTOR SI PNP CHIP	VDR-D200PL
Q4306	UNR9112J08	TRANSISTOR SI PNP CHIP	VDR-D200PL
or Q4306	B1GDCFLL0019	TRANSISTOR SI PNP CHIP	VDR-D200PL
or Q4306	B1GDCFLL0020	TRANSISTOR SI PNP CHIP	VDR-D200PL
Q4307	UNR9213J08	TRANSISTOR SI NPN CHIP	VDR-D200PL
or Q4307	B1GBCFNN0029	TRANSISTOR SI NPN CHIP	VDR-D200PL
or Q4307	B1GBCFNN0030	TRANSISTOR SI NPN CHIP	VDR-D200PL
Q4801	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q4801	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q6501	2SD10300SL	TRANSISTOR SI NPN CHIP	
Q6502	2SD2216J08	TRANSISTOR SI NPN CHIP	
or Q6502	B1ABCF000104	TRANSISTOR SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D4301	B3AFB0000126	LIGHT EMITTING DIODE RED	VDR-D200PL
D4302	B0BC6R2A0127	DIODE ZENER CHIP 6.2V	VDR-D200PL
D4303	B0BC6R2A0127	DIODE ZENER CHIP 6.2V	VDR-D200PL
D6503	MA3S132D0L	DIODE SI CHIP	
D6504	B3GA00000041	LIGHT EMITTING DIODE	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R4301	D0HB470ZA003	MGF CHIP 1/16W 47	VDR-D200PL
R4302	D0HB470ZA003	MGF CHIP 1/16W 47	VDR-D200PL
R4305	ERJ2RHD472X	MGF CHIP 1/16W 4.7K	VDR-D200PL
R4306	ERJ2RHD333X	MGF CHIP 1/16W 33K	VDR-D200PL
R4307	ERJ2RHD562X	MGF CHIP 1/16W 5.6K	VDR-D200PL
R4308	ERJ2RHD471X	MGF CHIP 1/16W 470	VDR-D200PL
R4802	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R4803	D0GA223JA015	MGF CHIP 1/16W 22K	
R4804	D0GA333JA015	MGF CHIP 1/16W 33K	
R4805	ERJ2GEJ124X	MGF CHIP 1/16W 120K	
R4806	D0GA333JA015	MGF CHIP 1/16W 33K	
R4807	D0HA392ZA001	MGF CHIP 1/16W 3.9K	
R4808	ERJ2GEJ124X	MGF CHIP 1/16W 120K	
R4809	D0GA333JA015	MGF CHIP 1/16W 33K	
R4810	D0HA392ZA001	MGF CHIP 1/16W 3.9K	
R6501	ERJ2GEJ560X	MGF CHIP 1/16W 56	
R6502	D0GA683JA015	MGF CHIP 1/16W 68K	
R6503	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6504	ERJ3GEYJ106V	MGF CHIP 1/16W 10M	
R6505	ERJ3GEYJ225V	MGF CHIP 1/16W 2.2M	
R6506	ERJ2GEJ334X	MGF CHIP 1/16W 330K	
R6507	D0GA182JA015	MGF CHIP 1/16W 1.8K	
R6508	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R6509	D0GA102JA015	MGF CHIP 1/16W 1K	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C4301	F1H1A105A036	C CHIP 10V 1UF	VDR-D200PL
C4801	F1H1A105A036	C CHIP 10V 1UF	
C4802	F1H1A105A036	C CHIP 10V 1UF	
C4803	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C4804	ECJ0EB1C822K	C CHIP 16V 8200PF	
C4805	ECJ0EB1A273K	C CHIP 10V 0.027UF	
C4806	ECJ0EB1A273K	C CHIP 10V 0.027UF	
C4808	ECJ0EB1A273K	C CHIP 10V 0.027UF	
C4809	ECJ0EB1C822K	C CHIP 16V 8200PF	
C4810	ECJ0EB1A273K	C CHIP 10V 0.027UF	
C4812	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	
C6501	F3F0J106A032	TANTALUM CHIP 6.3V 10UF	
C6502	F1G1A1040006	C CHIP 10V 0.1UF	
C6503	F1H0J474A002	C CHIP 6.3V 0.47UF	
C6504	F1G1A1040006	C CHIP 10V 0.1UF	

FPC CONNECTORS

Ref. No.	Part No.	Part Name & Description	Remarks
FP6501	K1MN12BA0089	CONNECTOR 12P	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
701	LSSC0827	FRONT EARTH PLATE A	
702	LSMG0136	MIC DAMPER	
703	LSJB8325	FRONT FPC	
704	B3RAB0000024	INFRARED RECEIVER	
705	LSEK0684	ELECTRIC CONDENSOR MICROPHONE UNIT	

16.2.3. JACK P.C.B.

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D7001	MAZM068H0L	DIODE ZENER CHIP 6.8V	
D7002	MAZM068H0L	DIODE ZENER CHIP 6.8V	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R7001	D0GA122JA015	MGF CHIP 1/16W 1.2K	
R7002	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R7003	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R7004	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C7001	ECJ0EB1H332K	C CHIP 50V 3300PF	
C7002	ECJ0EB1H332K	C CHIP 50V 3300PF	
C7003	F1H1A105A036	C CHIP 10V 1UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L7001	J0JBC0000027	FERRITE BEAD CHIP	
L7002	J0JBC0000027	FERRITE BEAD CHIP	
L7003	J0JBC0000027	FERRITE BEAD CHIP	
L7004	J0JBC0000027	FERRITE BEAD CHIP	
L7005	J0JBC0000027	FERRITE BEAD CHIP	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
B7001	K1KA20BA0052	CONNECTOR 20P	

JACKS

Ref. No.	Part No.	Part Name & Description	Remarks
JK7001	K2HZ110E0001	AUDIO VIDEO S-VIDEO JACK SOCKET	
JK7002	K2HZ105E0007	USB MINI JACK SOCKET	

BATTERY

Ref. No.	Part No.	Part Name & Description	Remarks
BT7001	ML-621S/F9D	BATTERY	

16.2.4. LIQUID CRYSTAL DISPLAY BACKLIGHT P.C.B. NR

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q8101	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8102	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8103	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8104	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8105	XP0450100L	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8106	XP0440100L	TRANSISTOR COMPLX CMP SI PNP CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D8109	MA2S728008	DIODE SI CHIP	
or D8109	B0JCDD000002	DIODE SI CHIP	
or D8109	MA2S72800L	DIODE SI CHIP	
D8110	MA2S728008	DIODE SI CHIP	
or D8110	B0JCDD000002	DIODE SI CHIP	
or D8110	MA2S72800L	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R8101	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8102	ERJ3GEYJ331V	MGF CHIP 1/16W 330	
R8103	ERJ3GEYJ331V	MGF CHIP 1/16W 330	
R8104	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8105	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8106	ERJ3GEYJ331V	MGF CHIP 1/16W 330	
R8107	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8108	D0HB470ZA003	MGF CHIP 1/16W 47	
R8109	D0HB470ZA003	MGF CHIP 1/16W 47	
R8110	D0HB470ZA003	MGF CHIP 1/16W 47	
R8111	D0HB470ZA003	MGF CHIP 1/16W 47	
R8112	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8113	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8114	ERA3YKD104V	MGF CHIP 1/16W 100K	
R8115	ERA3YED123V	MGF CHIP 1/16W 12K	
R8116	ERA3YKD184V	MGF CHIP 1/16W 180K	
R8117	ERJ3GEYJ393V	MGF CHIP 1/16W 39K	
R8118	ERJ3GEYJ393V	MGF CHIP 1/16W 39K	
R8119	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R8120	ERJ3GEYJ113V	MGF CHIP 1/16W 11K	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C8101	F1H1H330A230	C CHIP 50V 33PF	
C8102	F1H1H330A230	C CHIP 50V 33PF	
C8103	F1H1H330A230	C CHIP 50V 33PF	
C8104	F1J1C2250003	C CHIP 16V 2.2UF	
C8105	F1J1C2250003	C CHIP 16V 2.2UF	
C8106	F1H1C104A041	C CHIP 16V 0.1UF	
C8107	ECJ3YB1C475K	C CHIP 16V 4.7UF	
C8108	F1J1C1050028	C CHIP 16V 1UF	
C8109	F1J1C1050028	C CHIP 16V 1UF	
C8110	F1J1C1050028	C CHIP 16V 1UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L8101	G1C100M00010	COIL CHIP 10UH	
L8102	G1C100M00010	COIL CHIP 10UH	
L8103	G1C100M00010	COIL CHIP 10UH	
L8104	G1C100M00010	COIL CHIP 10UH	

FPC CONNECTORS

Ref. No.	Part No.	Part Name & Description	Remarks
FP8101	K1MN26BA0059	CONNECTOR 26P	
FP8102	K1MN24BA0059	CONNECTOR 24P	

16.2.5. SIDE R P.C.B.

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q6301	2SB09700RL	TRANSISTOR SI PNP CHIP	VDR-D200PL

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D6301	B3AAB0000038	LIGHT EMITTING DIODE	VDR-D200PL

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R6301	ERJ3GEYJ220V	MGF CHIP 1/16W 22	VDR-D200PL
R6302	ERJ3GEYJ220V	MGF CHIP 1/16W 22	VDR-D200PL
R6303	ERJ3GEYJ220V	MGF CHIP 1/16W 22	VDR-D200PL
R6304	ERJ3GEYJ220V	MGF CHIP 1/16W 22	VDR-D200PL
R6305	ERJ3GEYJ220V	MGF CHIP 1/16W 22	VDR-D200PL
R6306	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6307	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6308	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6309	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6310	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6311	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6312	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6313	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6314	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6315	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6316	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R6317	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R6323	ERJ3GEYJ561V	MGF CHIP 1/16W 560	VDR-D200PL
R6324	ERJ3GEY0R00V	MGF CHIP 1/16W 0	VDR-D200PL
R6325	ERJ6GEYJ150V	MGF CHIP 1/10W 15	VDR-D200PL

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C6301	F3F0J226A032	TANTALUM CHIP 6.3V 22UF	VDR-D200PL
C6302	F1H1C104A041	C CHIP 16V 0.1UF	VDR-D200PL
C6303	F1H1C104A041	C CHIP 16V 0.1UF	VDR-D200PL
C6304	F1H1H330A230	C CHIP 50V 33PF	VDR-D200PL
C6305	F1H1H330A230	C CHIP 50V 33PF	VDR-D200PL
C6306	F1H1H330A230	C CHIP 50V 33PF	VDR-D200PL
C6307	F1H1H330A230	C CHIP 50V 33PF	VDR-D200PL
C6308	F1H1H330A230	C CHIP 50V 33PF	VDR-D200PL
C6310	F1H1H103A219	C CHIP 50V 0.01UF	VDR-D200PL

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L6301	G1C100M00010	COIL CHIP 10UH	
L6302	ERJ3GEYJ181V	MGF CHIP 1/16W 180	VDR-D200PL

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
P6301	K1KA02BA0014	CONNECTOR 2P	

FPC CONNECTORS

Ref. No.	Part No.	Part Name & Description	Remarks
FP6301	K1MN22BA0089	CONNECTOR 22P	

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW6301	K0F111A00472	SWITCH PUSH	
SW6302	K0D113B00087	SWITCH SLIDE	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
721	K1NA09E00063	SD UNIT	VDR-D200PL

16.2.6. OPEN SWITCH P.C.B.

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW8301	K0L1AA000010	SWITCH SEESAW	

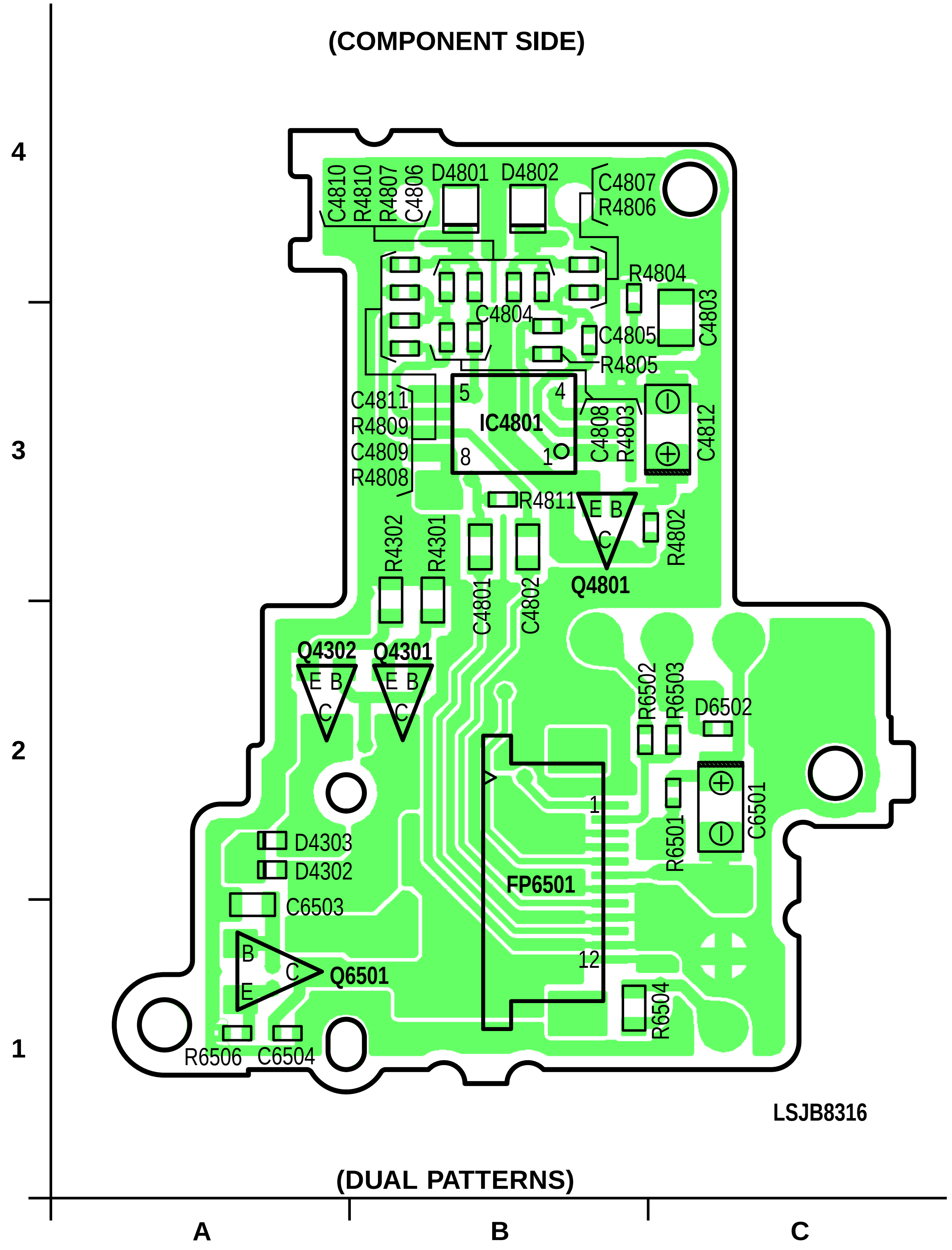
17. Schematic Diagrams for Printing with Letter Size

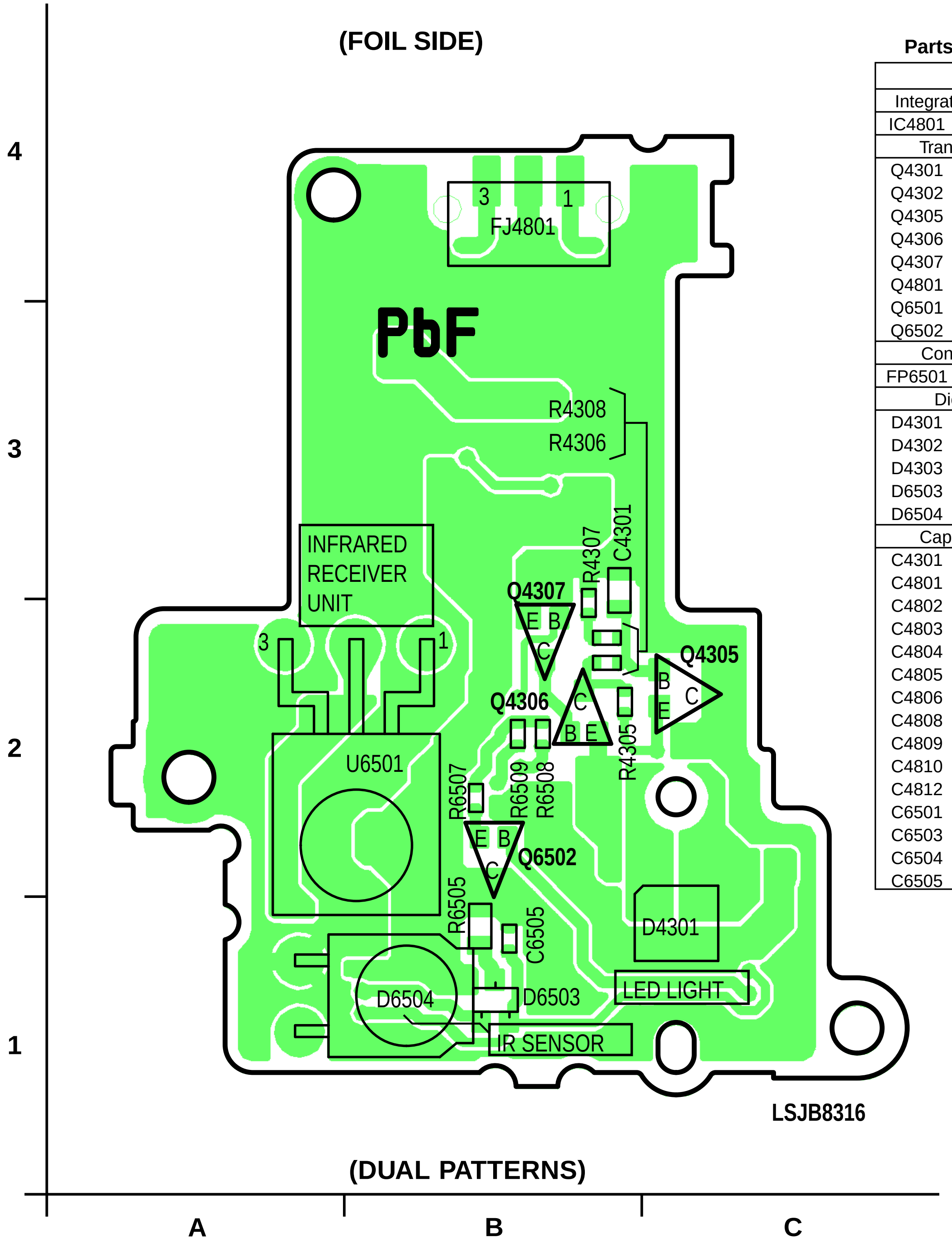
FRONT P.C.B. LSEP8316A1 (Model: VDR-D100PL)
LSEP8316B1 (Model: VDR-D200PL)

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS. FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING, PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.


(COMPONENT SIDE)
4
3
2
1
A
B
C
C4810
R4810
R4807
C4806
D4801
D4802
C4807
R4806
R4804
C4804
C4805
C4803
R4805
C4811
R4809
C4809
R4808
IC4801
5
4
8
1
C4808
R4803
C4812
R4811
E B
C
Q4801
R4802
R4302
R4301
C4801
C4802
Q4302
Q4301
R6502
R6503
D6502
D4303
D4302
C6503
FP6501
1
12
R6501
C6501
B
C
E
Q6501
R6504
R6506
C6504
LSJB8316
(DUAL PATTERNS)


(FOIL SIDE)
4
3
2
1
A
B
C
3
1
FJ4801
PbF
R4308
R4306
INFRARED RECEIVER UNIT
R4307
C4301
Q4307
E B
C
Q4305
B C
E
Q4306
C
B E
R4305
U6501
R6507
R6509
R6508
E B
C
Q6502
R6505
C6505
D4301
D6504
D6503
LED LIGHT
IR SENSOR
LSJB8316
(DUAL PATTERNS)

Parts Location

Front P.C.B.					
Integrated Circuit			Resistors		
IC4801	B-3	C	R4301	B-3	C
Transisters			R4302	B-3	C
Q4301	B-2	C	R4305	B-2	F
Q4302	A-2	C	R4306	B-3	F
Q4305	C-2	F	R4307	B-3	F
Q4306	B-2	F	R4308	B-3	F
Q4307	B-2	F	R4802	C-3	C
Q4801	B-3	C	R4803	B-3	C
Q6501	A-1	C	R4804	B-4	C
Q6502	B-2	F	R4805	B-3	C
Connector			R4806	B-4	C
FP6501	B-2	C	R4807	B-4	C
Diodes			R4808	B-3	C
D4301	C-1	F	R4809	B-3	C
D4302	A-2	C	R4810	B-4	C
D4303	A-2	C	R6501	C-2	C
D6503	B-1	F	R6502	C-2	C
D6504	B-1	F	R6503	C-2	C
Capacitors			R6504	C-1	C
C4301	B-3	F	R6505	B-1	F
C4801	B-3	C	R6506	A-1	C
C4802	B-3	C	R6507	B-2	F
C4803	C-3	C	R6508	B-2	F
C4804	B-3	C	R6509	B-2	F
C4805	B-3	C	Miscellaneous		
C4806	B-4	C	U6501	B-2	F
C4808	B-3	C			
C4809	B-3	C			
C4810	A-4	C			
C4812	C-3	C			
C6501	C-2	C			
C6503	A-1	C			
C6504	A-1	C			
C6505	B-1	F			

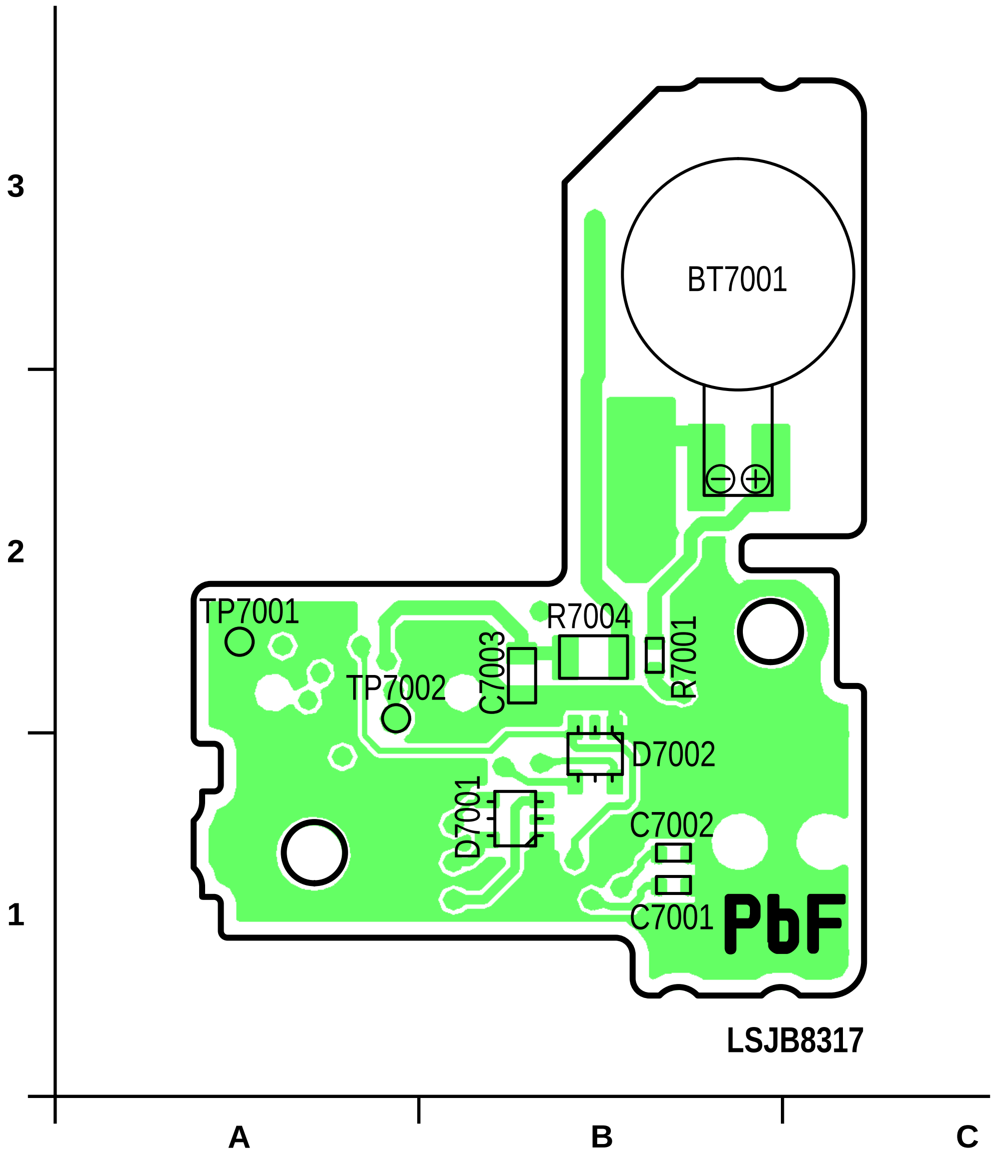
JACK P.C.B. LSEP8317A1

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

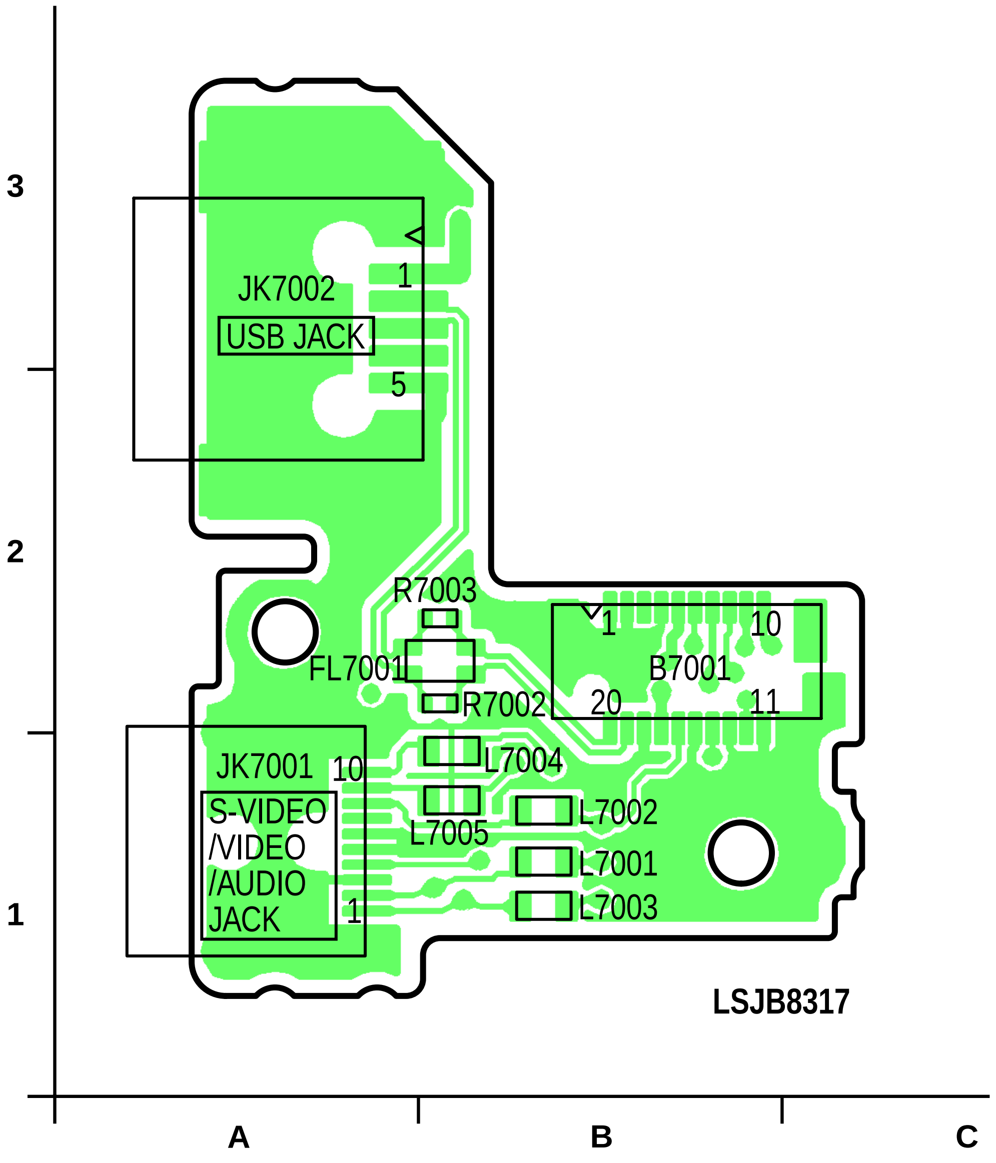
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

(COMPONENT SIDE)


3
2
1
A
B
C
BT7001
TP7001
TP7002
C7003
R7004
R7001
D7002
D7001
C7002
C7001
PbF
LSJB8317

(DUAL PATTERNS)

(FOIL SIDE)


3
2
1
A
B
C
JK7002
USB JACK
1
5
R7003
FL7001
R7002
B7001
1
10
20
11
JK7001
10
S-VIDEO
/VIDEO
/AUDIO
JACK
1
L7004
L7005
L7002
L7001
L7003
LSJB8317

(DUAL PATTERNS)

Parts Location

JACK P.C.B.		
Diodes		
D7001	B-1	C
D7002	B-1	C
Coilss		
L7001	B-1	F
L7002	B-1	F
L7003	B-1	F
L7004	B-1	F
L7005	B-1	F
Capacitors		
C7001	B-1	C
C7002	B-1	C
C7003	B-2	C
Resistors		
R7001	B-2	C
R7002	B-2	F
R7003	B-2	F
R7004	B-2	C
Miscellaneous		
B7001	B-2	F
BT7001	B-3	C
JK7001	A-1	F
JK7002	A-3	F

LCD BACKLIGHT P.C.B. LSEP8318A1

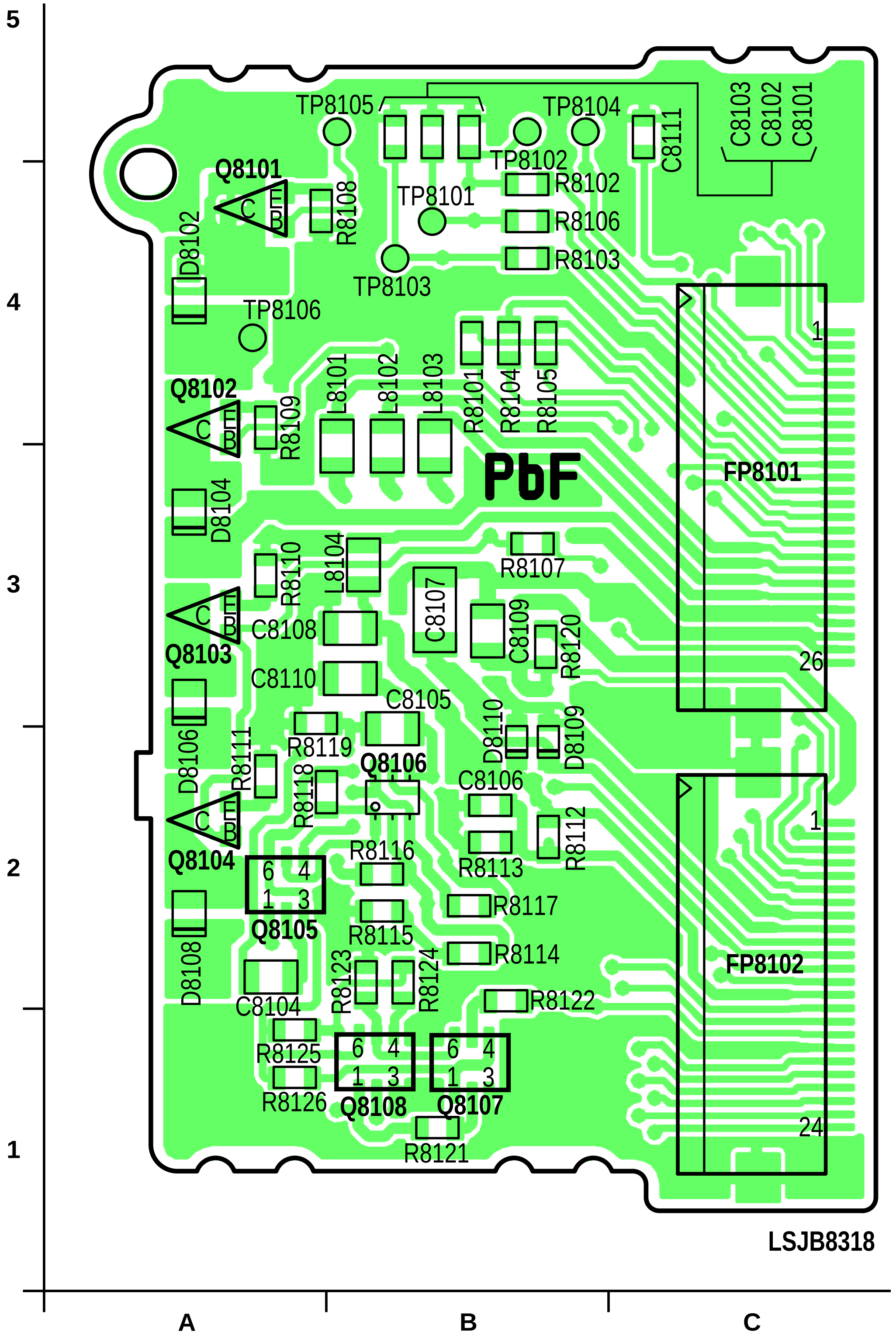
NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
ALL INDIVIDUAL PARTS EXCEPT D8101, D8103, D8105, AND D8107
ON LCD BACKLIGHT P.C.B. ARE SUPPLIED AS REPLACEMENT PARTS.
WHEN SERVICING THESE PARTS, REPLACE LCD BACKLIGHT P.C.B.
INSTEAD OF INDIVIDUAL PARTS.

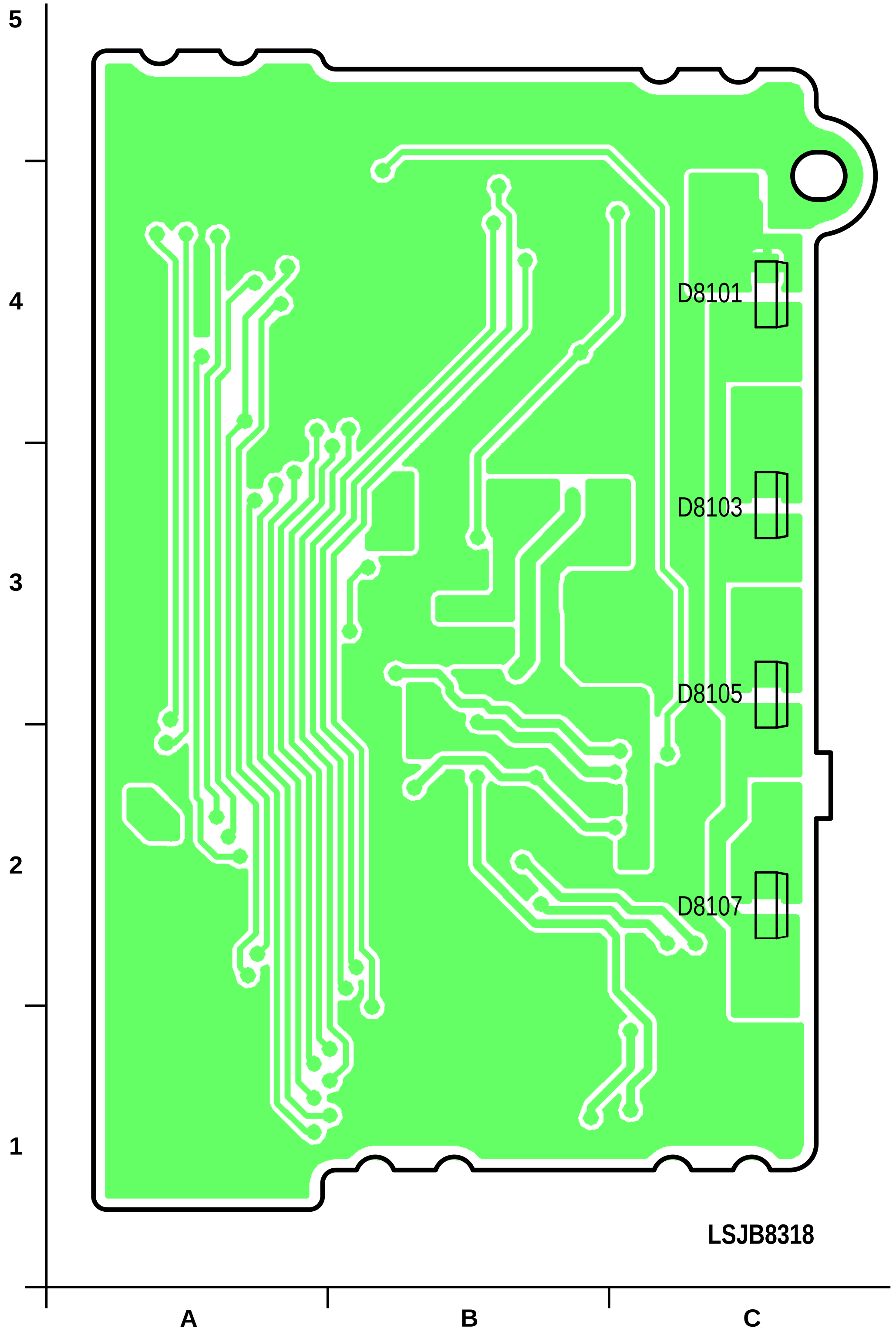
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

(COMPONENT SIDE)


5
4
3
2
1
A
B
C
TP8105
TP8104
TP8102
TP8101
TP8103
TP8106
Q8101
Q8102
Q8103
Q8104
Q8105
Q8106
Q8107
Q8108
C
E
B
R8108
R8102
R8106
R8103
C8111
C8103
C8102
C8101
D8102
D8104
D8106
D8108
R8109
L8101
L8102
L8103
R8101
R8104
R8105
PbF
FP8101
FP8102
1
26
1
24
R8110
L8104
R8107
C8107
C8109
R8120
C8108
C8110
C8105
D8110
D8109
R8111
R8119
R8118
C8106
R8112
R8116
R8113
6
4
1
3
R8117
R8115
R8114
R8123
R8124
R8122
C8104
R8125
R8126
R8121
LSJB8318

(DUAL PATTERNS)

(FOIL SIDE)


5
4
3
2
1
A
B
C
D8101
D8103
D8105
D8107
LSJB8318

(DUAL PATTERNS)

Parts Location

LCD P.C.B.					
Transisters			C8107	B-3	C
Q8101	A-4	C	C8108	A-3	C
Q8102	A-4	C	C8109	B-3	C
Q8103	A-3	C	C8110	A-3	C
Q8104	A-2	C	Resistors		
Q8105	A-2	C	R8101	B-4	C
Q8106	B-2	C	R8102	B-4	C
Connectors			R8103	B-4	C
FP8101	C-3	C	R8104	B-4	C
FP8102	C-2	C	R8105	B-4	C
Diodes			R8106	B-4	C
D8109	B-2	C	R8107	B-3	C
D8110	B-2	C	R8108	B-4	C
Coils			R8109	A-4	C
L8101	B-4	C	R8110	A-3	C
L8102	B-4	C	R8111	A-2	C
L8103	B-4	C	R8112	B-2	C
L8104	B-3	C	R8113	B-2	C
Capacitors			R8114	B-2	C
C8101	C-5	C	R8115	B-2	C
C8102	C-5	C	R8116	B-2	C
C8103	C-5	C	R8117	B-2	C
C8104	A-2	C	R8118	A-2	C
C8105	B-3	C	R8119	A-2	C
C8106	B-2	C	R8120	B-3	C

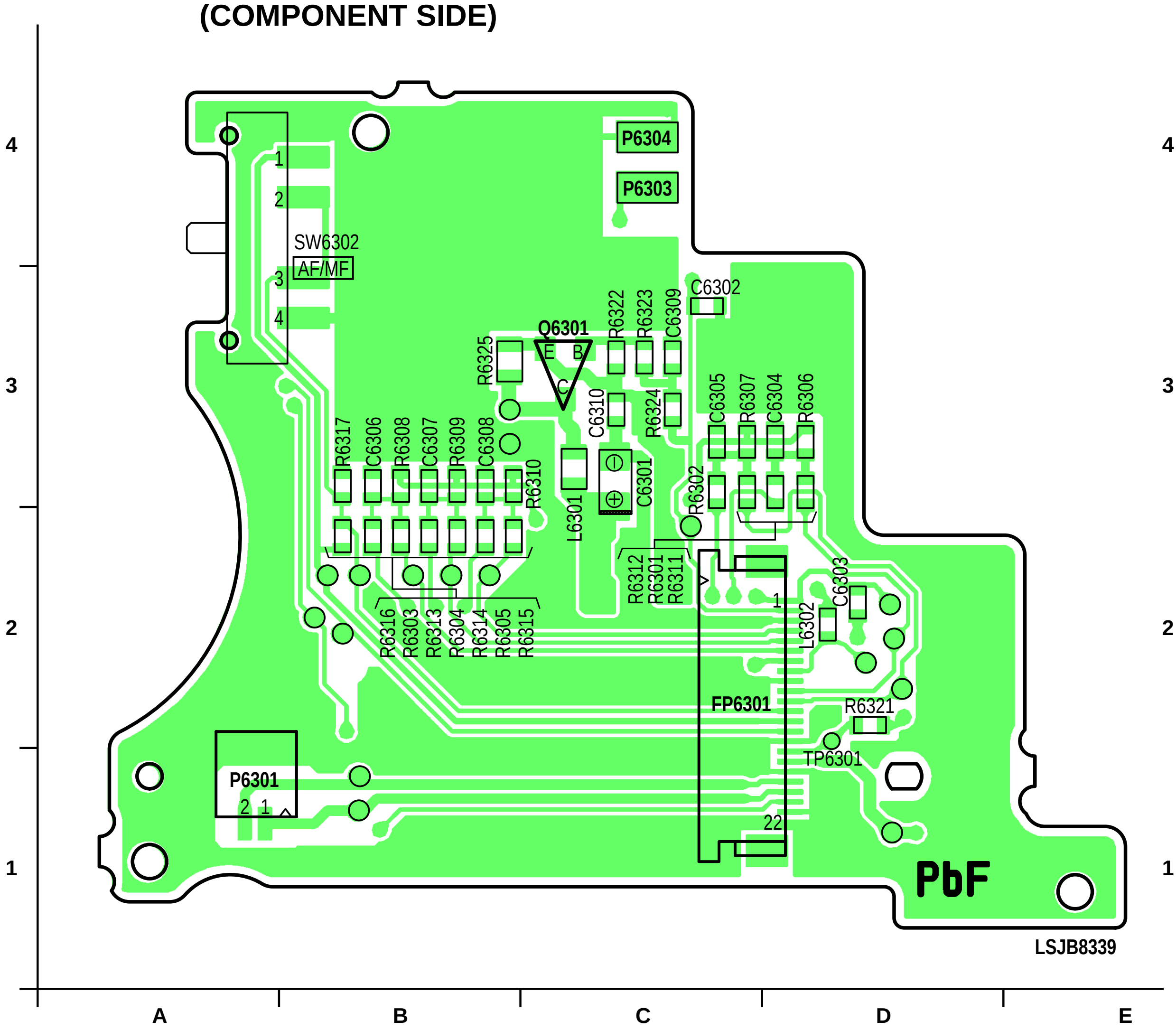
SIDE R P.C.B. LSEP8339A1 (Model: VDR-D100PL)
LSEP8339B1 (Model: VDR-D200PL)

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

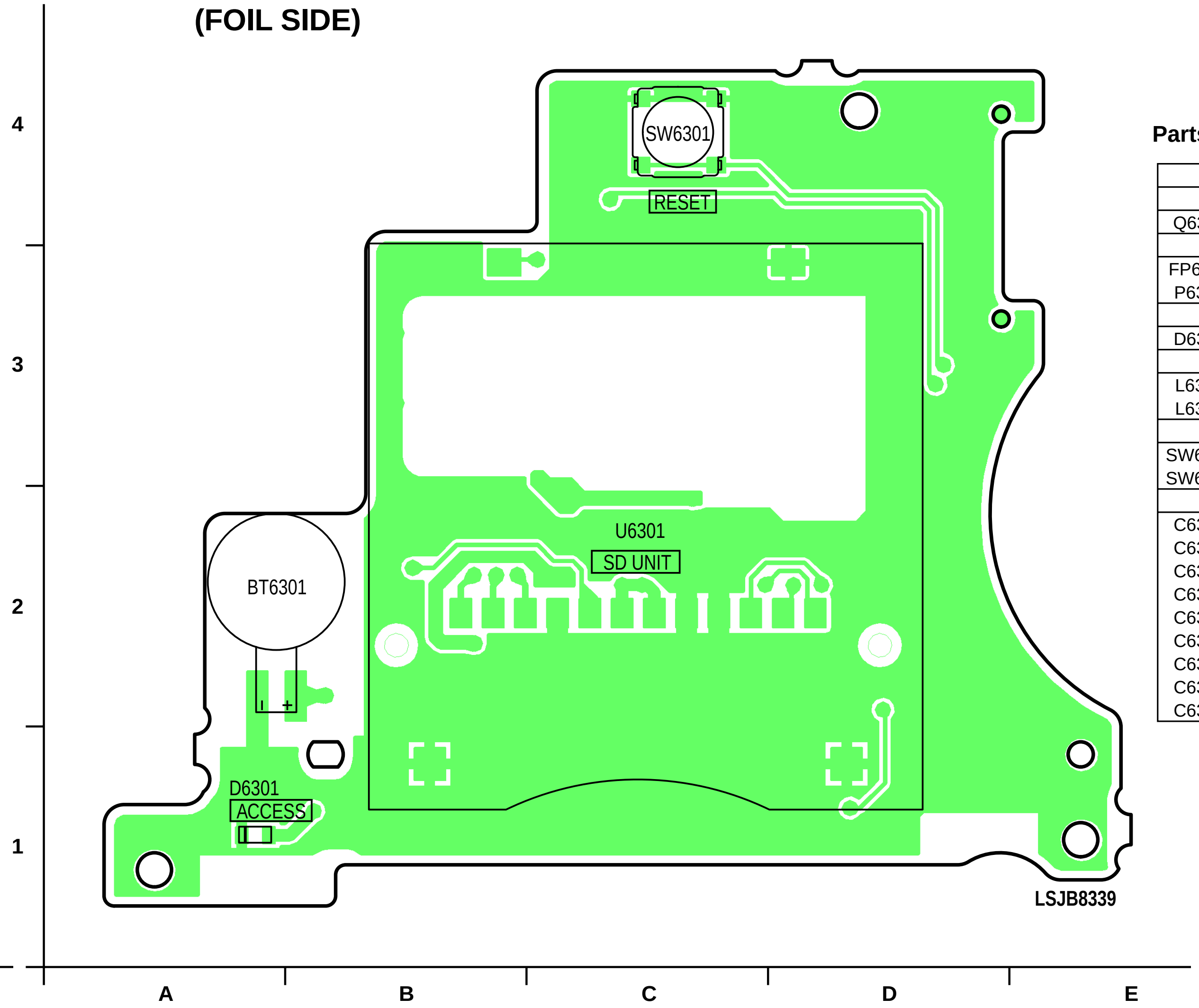
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

(COMPONENT SIDE)


4
3
2
1
A
B
C
D
E
1
2
3
4
SW6302
AF/MF
P6304
P6303
C6302
Q6301
E
B
C
R6325
R6322
R6323
C6309
C6310
R6324
R6317
C6306
R6308
C6307
R6309
C6308
R6310
L6301
C6301
R6302
C6305
R6307
C6304
R6306
R6312
R6301
R6311
C6303
L6302
R6316
R6303
R6313
R6304
R6314
R6305
R6315
FP6301
1
22
R6321
TP6301
P6301
2 1
PbF
LSJB8339

(FOIL SIDE)

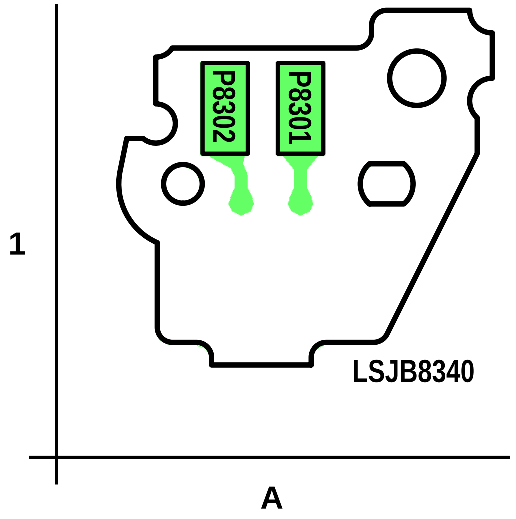

4
3
2
1
A
B
C
D
E
SW6301
RESET
U6301
SD UNIT
BT6301
D6301
ACCESS
LSJB8339

Parts Location

SIDE-R P.C.B.					
Transister			Resistors		
Q6301	C-3	C	R6301	C-2	C
Connectors			R6302	C-3	C
FP6301	C-2	C	R6303	B-2	C
P6301	A-1	C	R6304	B-2	C
Diode			R6305	B-2	C
D6301	A-1	F	R6306	D-3	C
Coils			R6307	C-3	C
L6301	C-2	C	R6308	B-3	C
L6302	D-2	C	R6309	B-3	C
Switches			R6310	C-3	C
SW6301	C-4	F	R6311	C-2	C
SW6302	B-4	C	R6312	C-2	C
Capacitors			R6313	B-2	C
C6301	C-3	C	R6314	B-2	C
C6302	C-3	C	R6315	C-2	C
C6303	D-2	C	R6316	B-2	C
C6304	D-3	C	R6317	B-3	C
C6305	C-3	C	R6323	C-3	C
C6306	B-3	C	R6324	C-3	C
C6307	B-3	C	R6325	B-3	C
C6308	B-3	C	Miscellaneous		
C6310	C-3	C	U6301	C-2	F

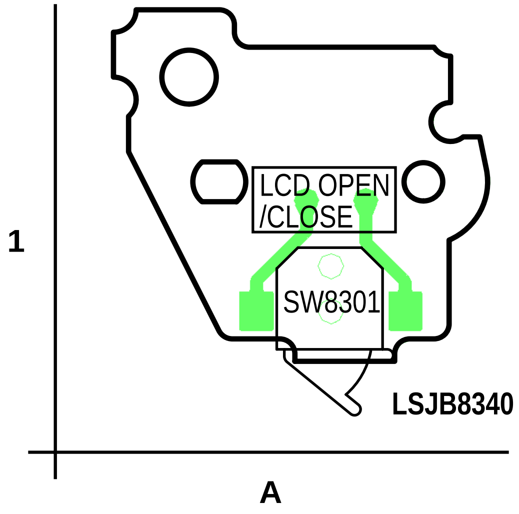
OPEN SWITCH P.C.B. LSEP8340A1

(COMPONENT SIDE)


1
A
P8302
P8301
LSJB8340

(DUAL PATTERNS)

(FOIL SIDE)


1
A
LCD OPEN
/CLOSE
SW8301
LSJB8340

(DUAL PATTERNS)

1. **Important safety notice**

   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.

2. Do not use the part numbers shown on these drawings for ordering.
   The correct part number and part value is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

3. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Parts different in shape or size may be used.
   However, only interchangeable parts will be supplied as service replacement parts.

5. Test point information

   ○ : Test point with no test pin.

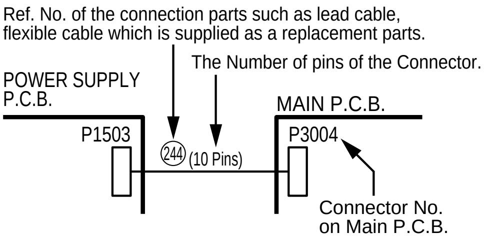
Schematic Diagram Notes

1. Indication for Zener Voltage of Zener Diodes
   The Zener Voltages of Zener Diodes are indicated as such on Schematic Diagrams.

   Example:
   (6.2V)......Zener Voltage

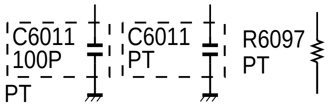
2. How to identify Connectors
   Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to (its counter part). Use the interconnection schematic diagram to find the connection between associated connectors.

   Example:
   The connections between two P.C.B.s are shown below.


Ref. No. of the connection parts such as lead cable,
flexible cable which is supplied as a replacement parts.
The Number of pins of the Connector.
POWER SUPPLY
P.C.B.
MAIN P.C.B.
P1503
244
(10 Pins)
P3004
Connector No.
on Main P.C.B.

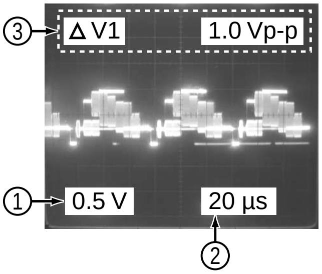
3. Parts marked "PT" are not used in any models included in this service model.

   Example:


C6011
100P
PT
C6011
PT
R6097
PT

Signal Waveform Note

How to read Signal Waveform


③
Δ V1
1.0 Vp-p
①
0.5 V
20 µs
②

① Volts/Div
② Time/Div
③ ΔV1:Peak to Peak

Voltage Chart Note

Voltage Measurement

a. Color bar signal in SP mode.
b. ---:Unmeasurable or not necessary to measure.

Circuit Board Layout Note

Circuit Board Layouts show components installed for various models.
For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

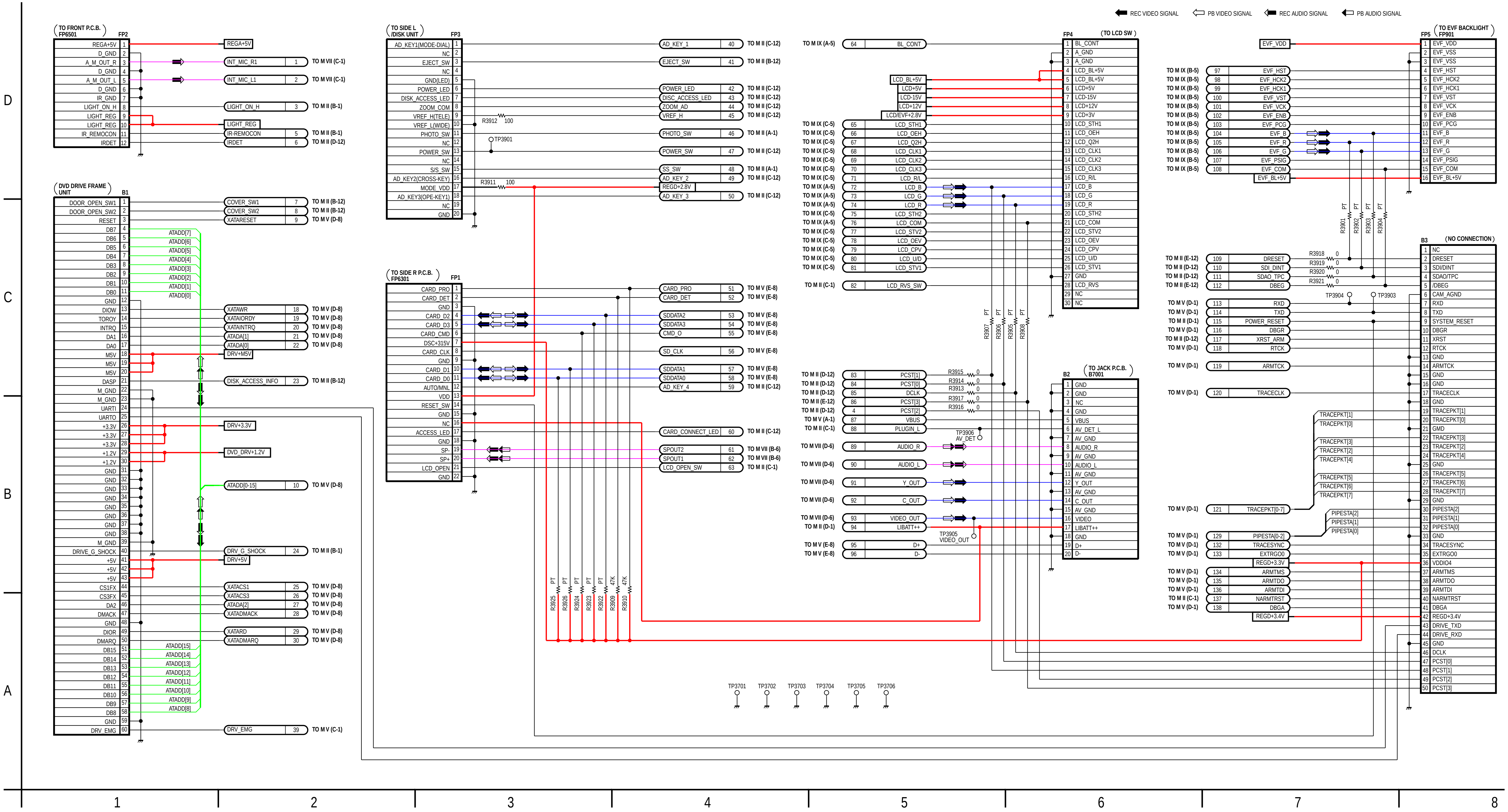
NOTE:
Circuit Board Layouts include components which are not used.

MAIN I SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
TO FRONT P.C.B. FP6501
FP2
DVD DRIVE FRAME UNIT
B1
TO SIDE L /DISK UNIT
FP3
TO SIDE R P.C.B. FP6301
FP1
FP4
(TO LCD SW)
FP5
TO EVF BACKLIGHT FP901
B3
(NO CONNECTION)
B2
TO JACK P.C.B. B7001
TP3701
TP3702
TP3703
TP3704
TP3705
TP3706
A
B
C
D
1
2
3
4
5
6
7
8

LINK TO VOLTAGE CHART

LSJB8314

MAIN I SCHEMATIC DIAGRAM

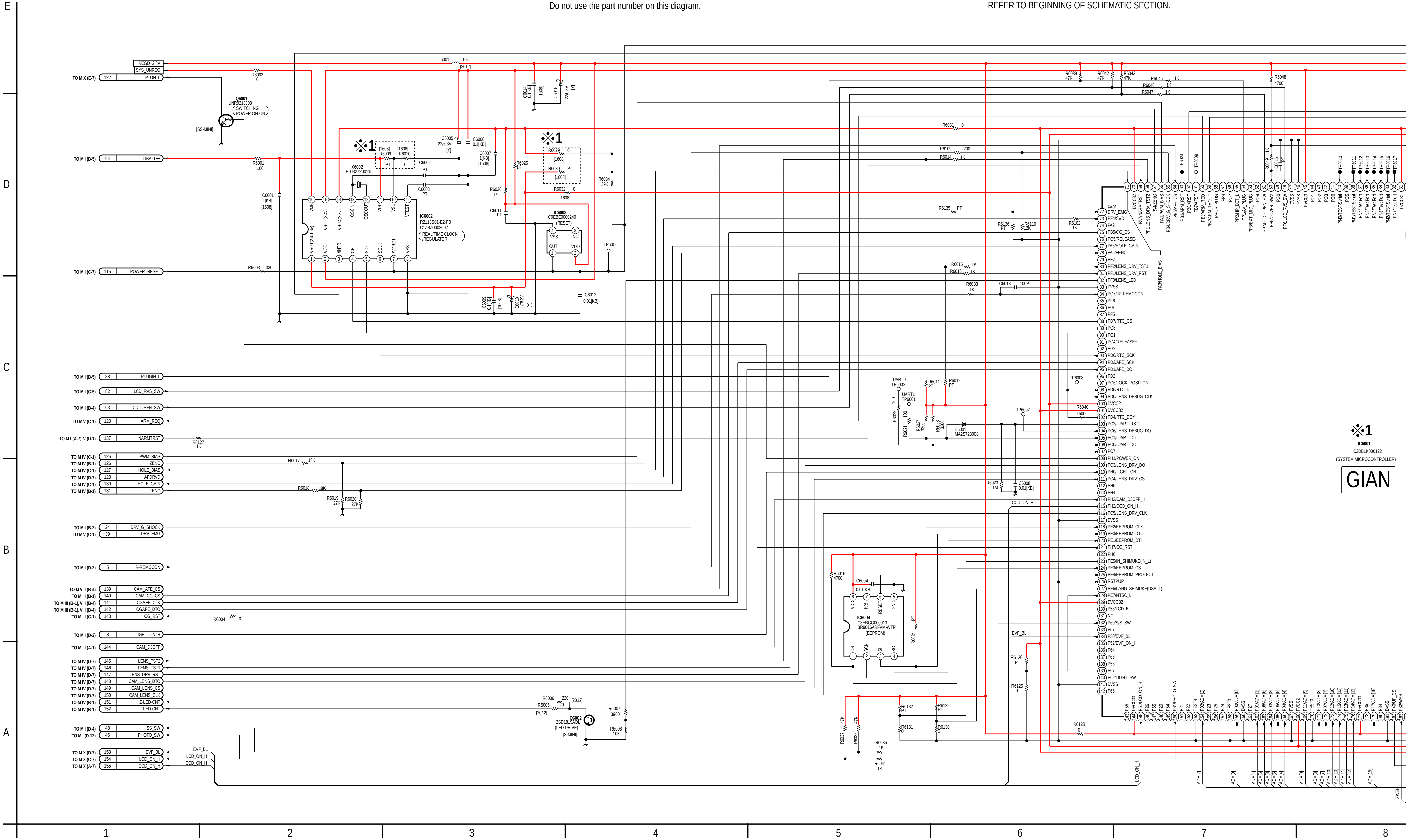
VDR-D100PL/VDR-D200PL

MAIN II SCHEMATIC DIAGRAM (1/2)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


E
D
C
B
A
1
2
3
4
5
6
7
8
REGD+2.8V
SYS_UNREG
TO M X (E-7) 122 P_ON_L
TO M I (B-5) 94 LIBATT++
TO M I (C-7) 115 POWER_RESET
TO M I (B-5) 88 PLUGIN_L
TO M I (C-5) 82 LCD_RVS_SW
TO M I (B-4) 63 LCD_OPEN_SW
TO M V (C-1) 123 ARM_REQ
TO M I (A-7), V (D-1) 137 NARMTRST
TO M IV (C-1) 125 PWM_BIAS
TO M IV (B-1) 126 ZENC
TO M IV (C-1) 127 HOLE_BIAS
TO M IV (D-7) 128 AFDRVD
TO M IV (C-1) 130 HOLE_GAIN
TO M IV (B-1) 131 FENC
TO M I (B-2) 24 DRV_G_SHOCK
TO M V (C-1) 39 DRV_EMG
TO M I (D-2) 5 IR-REMOCON
TO M VIII (B-4) 139 CAM_AFE_CS
TO M III (B-1) 140 CAM_CG_CS
TO M III (B-1), VIII (B-4) 141 CGAFE_CLK
TO M III (B-1), VIII (B-4) 142 CGAFE_DTO
TO M III (C-1) 143 CG_RST
TO M I (D-2) 3 LIGHT_ON_H
TO M III (A-1) 144 CAM_D3OFF
TO M IV (D-7) 145 LENS_TST2
TO M IV (D-7) 146 LENS_TST1
TO M IV (D-7) 147 LENS_DRV_RST
TO M IV (D-7) 148 CAM_LENS_DTO
TO M IV (D-7) 149 CAM_LENS_CS
TO M IV (D-7) 150 CAM_LENS_CLK
TO M IV (B-1) 151 Z-LED-CNT
TO M IV (B-1) 152 F-LED-CNT
TO M I (D-4) 48 SS_SW
TO M I (D-12) 46 PHOTO_SW
TO M X (D-7) 153 EVF_BL
TO M X (C-7) 154 LCD_ON_H
TO M X (A-7) 155 CCD_ON_H
Q6001 UNR9213J08 (SWITCHING POWER ON-ON)
[SS-MINI]
※1
IC6002 R2113S01-E2-FB C1ZBZ0002602 (REAL TIME CLOCK /REGULATOR)
X6002 H0J327200115
IC6003 C0EBE0000240 (RESET)
IC6004 C3EBGG000013 BR9016ARFVM-WTR (EEPROM)
Q6002 2SD1819ADL (LED DRIVE) [S-MINI]
D6001 MA2S728008
IC6001 C2DBLK000122 (SYSTEM MICROCONTROLLER)
GIAN
L6001 10U [2012]
TP6006
TP6007
TP6008
UART0 TP6002
UART1 TP6001
CCD_ON_H
EVF_BL
72 PA0/DRV_EMG
73 PF4/SVD
74 PA2
75 PB5/CG_CS
76 PG5/RELEASE-
77 PA6/HOLE_GAIN
78 PA5/FENC
79 PF7
80 PF2/LENS_DRV_TST1
81 PF1/LENS_DRV_RST
82 PF0/LENS_LED
83 DVSS
84 PG7/IR_REMOCON
85 PF6
86 PG0
87 PF5
88 PD7/RTC_CS
89 PG3
90 PG1
91 PG4/RELEASE+
92 PG2
93 PD6/RTC_SCK
94 PD3/AFE_SCK
95 PD1/AFE_DO
96 PD2
97 PG6/LOCK_POSITION
98 PD5/RTC_DI
99 PD0/LENS_DEBUG_CLK
100 DVCC2
101 DVCC32
102 PD4/RTC_DOY
103 PC2/(UART_RST)
104 PC6/LENS_DEBUG_DO
105 PC1/(UART_DI)
106 PC0/(UART_DO)
107 PC7
108 PH1/POWER_ON
109 PC3/LENS_DRV_DO
110 PH0/LIGHT_ON
111 PC4/LENS_DRV_CS
112 PH5
113 PH4
114 PH3/CAM_D3OFF_H
115 PH2/CCD_ON_H
116 PC5/LENS_DRV_CLK
117 DVSS
118 PE2/EEPROM_CLK
119 PE0/EEPROM_DTO
120 PE1/EEPROM_DTI
121 PH7/CG_RST
122 PH6
123 PE5/N_SHIMUKE(IN_L)
124 PE3/EEPROM_CS
125 PE4/EEPROM_PROTECT
126 RSTPUP
127 PE6/LANG_SHIMUKE(USA_L)
128 PE7/NTSC_L
129 DVCC32
130 P53/LCD_BL
131 NC
132 P60/S/S_SW
133 P57
134 P50/EVF_BL
135 P52/EVF_ON_H
136 P64
137 P63
138 P56
139 P67
140 P62/LIGHT_SW
141 DVSS
142 P66
LINK TO VOLTAGE CHART

LINK TO VOLTAGE CHART

LSJB8314

MAIN II (1/2) SCHEMATIC DIAGRAM

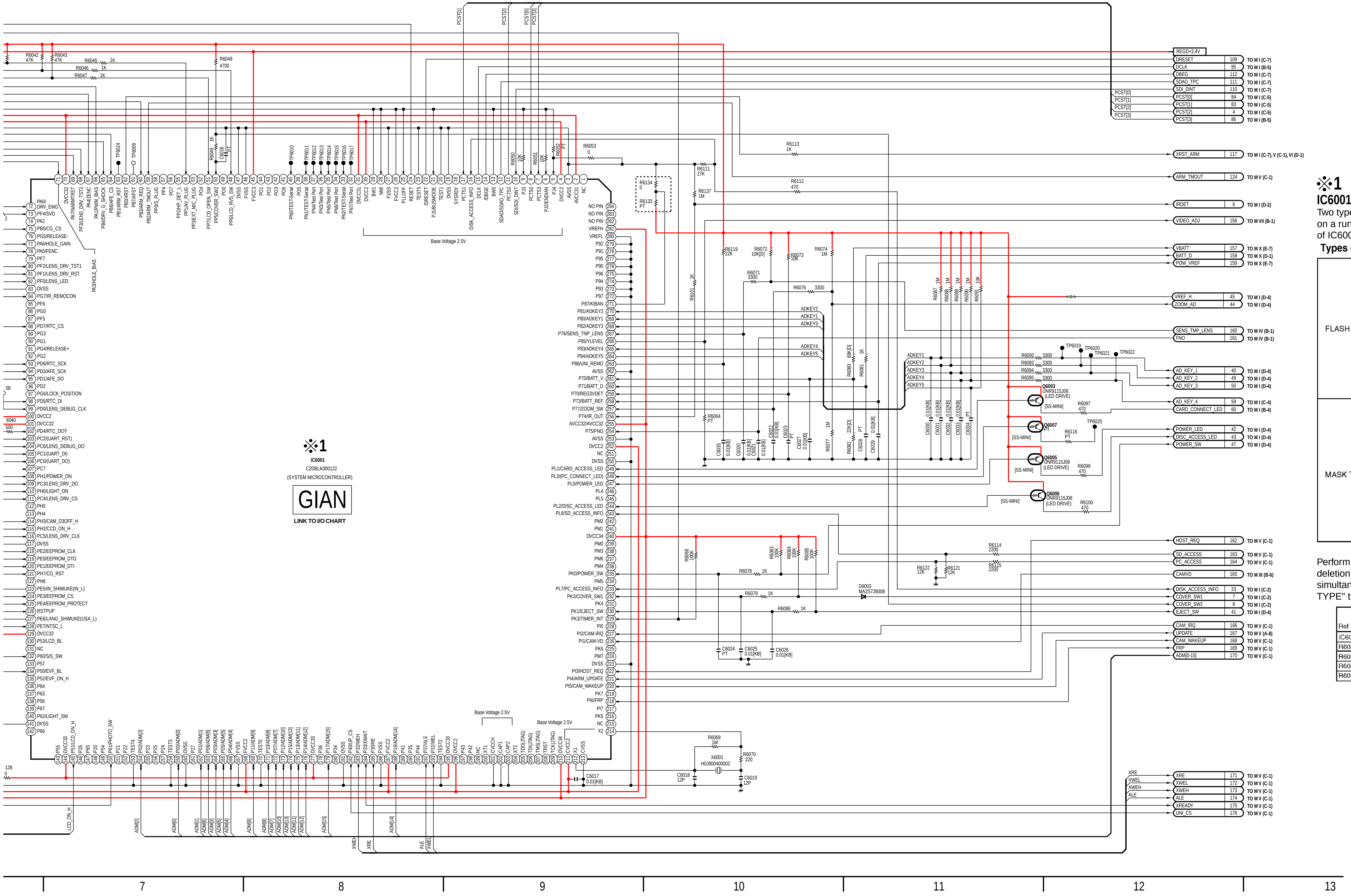
VDR-D100PL/VDR-D200PL

MAIN II SCHEMATIC DIAGRAM (2/2)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

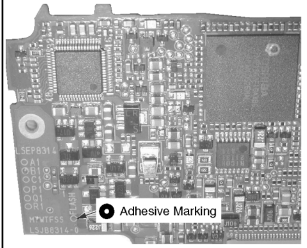
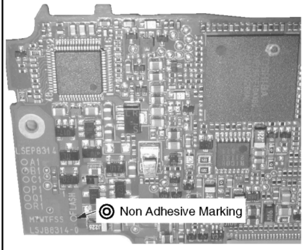
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


※1
IC6001
C2DBLK000122
(SYSTEM MICROCONTROLLER)
GIAN
LINK TO I/O CHART
Base Voltage 2.5V
REGD+3.4V
DRESET 109 TO M I (C-7)
DCLK 85 TO M I (B-5)
DBEG 112 TO M I (C-7)
SDAO_TPC 111 TO M I (C-7)
SDI_DINT 110 TO M I (C-7)
PCST[0] 84 TO M I (C-5)
PCST[1] 83 TO M I (C-5)
PCST[2] 4 TO M I (C-5)
PCST[3] 86 TO M I (B-5)
XRST_ARM 117 TO M I (C-7), V (C-1), VI (D-1)
ARM_TMOUT 124 TO M V (C-1)
IRDET 6 TO M I (D-2)
VIDEO_ADJ 156 TO M VII (B-1)
VBATT 157 TO M X (E-7)
BATT_D 158 TO M X (D-1)
POW_VREF 159 TO M X (E-7)
VREF_H 45 TO M I (D-4)
ZOOM_AD 44 TO M I (D-4)
SENS_TMP_LENS 160 TO M IV (B-1)
FNO 161 TO M IV (B-1)
AD_KEY_1 40 TO M I (D-4)
AD_KEY_2 49 TO M I (D-4)
AD_KEY_3 50 TO M I (D-4)
AD_KEY_4 59 TO M I (C-4)
CARD_CONNECT_LED 60 TO M I (B-4)
POWER_LED 42 TO M I (D-4)
DISC_ACCESS_LED 43 TO M I (D-4)
POWER_SW 47 TO M I (D-4)
HOST_REQ 162 TO M V (C-1)
SD_ACCESS 163 TO M V (C-1)
PC_ACCESS 164 TO M V (C-1)
CAMVD 165 TO M III (B-6)
DISK_ACCESS_INFO 23 TO M I (C-2)
COVER_SW1 7 TO M I (C-2)
COVER_SW2 8 TO M I (C-2)
EJECT_SW 41 TO M I (D-4)
CAM_IRQ 166 TO M V (C-1)
UPDATE 167 TO M V (A-8)
CAM_WAKEUP 168 TO M V (C-1)
FRP 169 TO M V (C-1)
ADM[0-15] 170 TO M V (C-1)
XRE 171 TO M V (C-1)
XWEL 172 TO M V (C-1)
XWEH 173 TO M V (C-1)
ALE 174 TO M V (C-1)
XREADY 175 TO M V (C-1)
UNI_CS 176 TO M V (C-1)
Q6003 UNR9115J08 (LED DRIVE)
Q6005 UNR9115J08 (LED DRIVE)
Q6006 UNR9115J08 (LED DRIVE)
Q6007 PT
D6003 MA2ST28008
X6001 H0J900400002
7
8
9
10
11
12
13

※1
IC6001 replacement note:

Two types of IC6001 (FLASH or MASK) are used on a running change basis, however MASK TYPE of IC6001 is supplied only as a replacement part.

Types of IC6001

FLASH TYPE	 Adhesive Marking
MASK TYPE	 Non Adhesive Marking

Perform the addtion (R6010 and R6029) and also deletion (R6009 and R6030) of the following part simultaneously, when exchanging from the "FLASH TYPE" to the "MASK TYPE" of IC6001.

	FLASH TYPE	MASK TYPE	
Ref No.	Part No.	Part No.	Part Name
IC6001	- - - - - - - - - -	C2DBLK000122	IC
R6009	ERJ3GEY0R00V	- - - - - - - - - -	Resistor
R6010	- - - - - - - - - -	ERJ3GEY0R00V	Resistor
R6029	- - - - - - - - - -	ERJ3GEY0R00V	Resistor
R6030	ERJ3GEY0R00V	- - - - - - - - - -	Resistor

LINK TO VOLTAGE CHART

LSJB8314
MAIN II (2/2) SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

I/O CHART OF IC6001

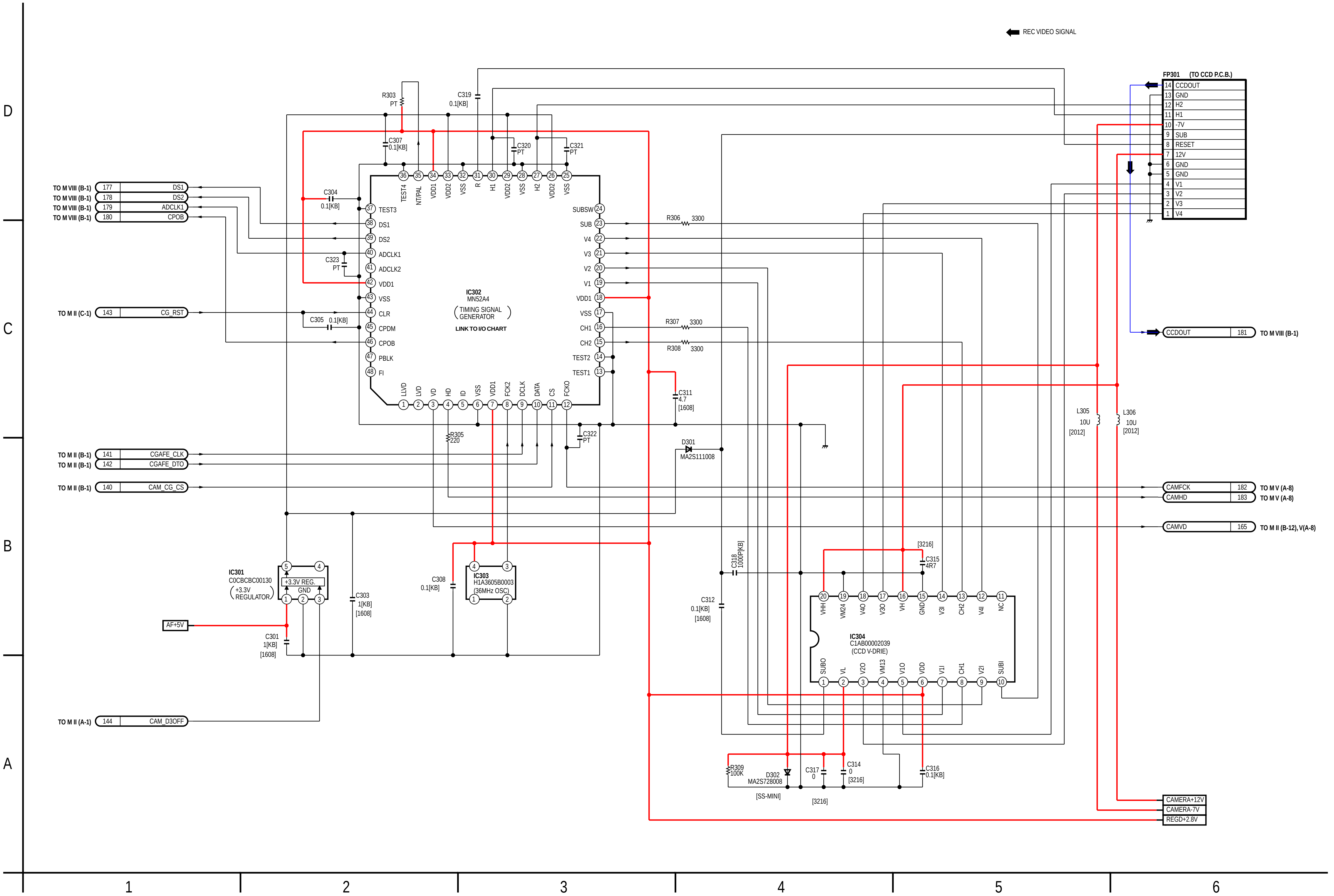
Pin No.	I/O	Signal Name	Description
1	---	NC	(Not used)
2	I	AVCC31	+2.8V
3	---	AVSS	Ground
4	I	DVCC2	+2.4V
5	---	PJ4	(Not used)
6	---	ENDIAN	(Not used)
7	---	PCTS3	(Not used)
8	---	PCTS0	(Not used)
9	---	PJ3	(Not used)
10	---	SDI DINT	(Not used)
11	---	PCTS2	(Not used)
12	---	SDAO TPC	(Not used)
13	---	BW0	(Not used)
14	---	/DBGE	(Not used)
15	---	DCLK	(Not used)
16	I	DISK ACCESS INFO	Disk Access Information
17	---	PCTS1	(Not used)
18	---	SYSRDY	(Not used)
19	---	DVSS	Ground
20	---	TEST1	(Not used)
21	---	BUSMODE	(Not used)
22	---	/DRESET	(Not used)
23	---	TEST5	(Not used)
24	I	RESET	Reset : Low
25	---	PLL OFF	(Not used)
26	I	FVCC2	+2.4V
27	---	FVSS	Ground
28	---	NMI	(Not used)
29	---	BW1	(Not used)
30	I	DVCC2	+2.4V
31	I	DVCC31	+2.8V
32	---	Test Port	(Not used)
33	---	Test Serial	(Not used)
34	---	Test Port	(Not used)
35	---	Test Port	(Not used)
36	---	Test Port	(Not used)
37	---	Test Port	(Not used)
38	---	Test Serial	(Not used)
39	---	NC	(Not used)
40	---	Test Serial	(Not used)
41	---	NC	(Not used)
42	---	NC	(Not used)
43	---	NC	(Not used)
44	---	NC	(Not used)
45	I	FVCC3	+3.4V
46	---	FVSS	Ground
47	---	DVSS	Ground
48	I	LCD RVS SW	LCD Reverse : Low
49	---	NC	(Not used)
50	I	COVER SW2	Cover Switch 2 Open : Low
51	I	LCD OPEN SW	LCD Open : Low
52	---	NC	(Not used)
53	---	EXT MIC PLUG	(Not used)
54	I	AV PLUG	AV Plug In Detect : Low
55	---	NC	(Not used)
56	---	HP DET L	(Not used)
57	---	NC	(Not used)
58	---	S PLUG	(Not used)
59	I	ARM TMOUT	Arm Core Watch
60	I	ARM REQ	Micon I/F Data Send Request
61	---	AFST	(Not used)
62	O	XRST	Reset : Low
63	---	ARM RST	(Not used)
64	O	AFE CS	Camera DAC (IC501) CS : Low
65	O	DRV G SHOCK	Drive Unit Wake Up Enable : Low
66	O	PWM BIAS	PWM Bias Control
67	I	ZENC	Zoom Encoder
68	I	LENS DRV TST2	Lens Driver Motor 2 Input
69	O	NARMTRST	Reset : Low
70	I	DVCC32	+2.8V
71	O	HOLE BIAS	Hall Bias Control
72	---	DRV EMG	(Not used)
73	O	SVD	Lens Driver SVD
74	---	NC	(Not used)
75	O	CG CS	TG (IC302) CS : Low
76	---	NC	(Not used)
77	O	HOLE GAIN	Hall Amp Gain Control
78	I	FENC	Focus Encoder
79	---	NC	(Not used)
80	I	LENS DRV TST1	Lens Driver Motor 1 Input
81	O	LENS DRV RST	Lens Driver Reset Control
82	O	LENS LED	Lens LED Control
83	---	DVSS	Ground
84	I	IR REMOCON	IR Remote Control Data
85	---	NC	(Not used)
86	---	NC	(Not used)
87	---	NC	(Not used)
88	O	RTC CS	RTC (IC6002) CS : Low
89	---	NC	(Not used)
90	---	NC	(Not used)
91	---	RELEASE+	(Not used)
92	---	NC	(Not used)
93	O	RTC SCK	RTC Serial Clock
94	O	AFE SCK	Camera DAC / TG Serial Clock
95	O	AFE DO	Camera DAC / TG Serial Data
96	---	NC	(Not used)
97	---	LOCK POSITION	(Not used)
98	I	RTC DI	RTC Serial Data 1
99	---	LENS DEBUG CLK	(Not used)
100	I	DVCC2	+2.4V
101	I	DVCC32	+2.8V
102	O	RTC DO	RTC Serial Data 0
103	I	UART RST	RS-232C Reset
104	---	LENS DEBUG DO	(Not used)
105	I	UART DI	RS-232C Received Data
106	O	UART DO	RS-232C Transmitted Data
107	---	NC	(Not used)
108	O	POWER ON	Power ON : High
109	O	LENS DRV DO	Lens Driver Serial Data
110	O	LIGHT ON	Light On : High
111	O	LENS DRV CS	Lens Driver CS : Low
112	---	NC	(Not used)
113	---	NC	(Not used)
114	O	CAM D30FF H	IC301 Off : High
115	O	CCD ON H	CCD ON : High
116	O	LENS DRV CLK	Lens Driver Serial Clock
117	---	DVSS	Ground
118	O	EEPROM CLK	EEPROM Serial Clock
119	O	EEPROM DTO	EEPROM Serial Data 0
120	I	EEPROM DTI	EEPROM Serial Data 1
121	O	CG RST	TG (IC302) Reset : Low
122	---	NC	(Not used)
123	---	IN SHIMUKE(IN L)	(Not used)
124	O	EEPROM CS	EEPROM CS : Low
125	O	EEPROM PROTECT	EEPROM Protect
126	---	RSTPUP	(Not used)
127	---	LANG SHIMUKE(USA L)	(Not used)
128	---	NTSC L	NTSC : Low
129	I	DVCC32	+2.8V
130	---	LCD BL	(Not used)
131	---	NC	(Not used)
132	I	S/S SW	REC/Pause SW On:Low
133	---	NC	(Not used)
134	O	EVF BL	EVF Backlight On : High
135	---	EVF ON H	(Not used)
136	---	NC	(Not used)
137	---	NC	(Not used)
138	---	NC	(Not used)
139	---	NC	(Not used)
140	---	LIGHT SW	(Not used)
141	---	DVSS	Ground
142	---	NC	(Not used)
143	---	NC	(Not used)
144	I	DVCC33	+2.8V
145	O	LCD ON H	LCD Power On : High
146	---	NC	(Not used)
147	---	NC	(Not used)
148	---	NC	(Not used)
149	---	NC	(Not used)
150	I	PHOTO SW	Photo SW On : Low
151	---	NC	(Not used)
152	---	NC	(Not used)
153	---	TEST4	(Not used)
154	I/O	ADM[2]	Address / Data 2
155	---	NC	(Not used)
156	---	NC	(Not used)
157	---	NC	(Not used)
158	---	TEST3	(Not used)
159	I/O	ADM[0]	Address / Data 0
160	---	DVSS	Ground
161	---	NC	(Not used)
162	I/O	ADM[1]	Address / Data 1
163	I/O	ADM[6]	Address / Data 6
164	I/O	ADM[3]	Address / Data 3
165	I/O	ADM[5]	Address / Data 5
166	I/O	ADM[4]	Address / Data 4
167	---	FVSS	Ground
168	I	FVCC2	+2.4V
169	I/O	ADM[9]	Address / Data 9
170	---	TEST0	(Not used)
171	I/O	ADM[8]	Address / Data 8
172	I/O	ADM[7]	Address / Data 7
173	I/O	ADM[10]	Address / Data 10
174	I/O	ADM[13]	Address / Data 13
175	I/O	ADM[11]	Address / Data 11
176	I/O	ADM[12]	Address / Data 12
177	I	DVCC33	+2.8V
178	---	NC	(Not used)
179	I/O	ADM[15]	Address / Data 15
180	---	NC	(Not used)
181	---	DVSS	Ground
182	O	UP CS	UNIPHIER (IC3001) CS : Low
183	O	WEH	Write Enable : High
184	I	XWAIT	UNIPHIER (IC3001) Ready : Low
185	O	RE	Read Enable : High
186	---	FVSS	Ground
187	I	FVCC2	+2.4V
188	I/O	ADM[14]	Address / Data 14
189	---	NC	(Not used)
190	---	NC	(Not used)
191	---	NC	(Not used)
192	O	ALE	Latch Enable
193	O	WEL	White Enable : Low
194	---	TEST2	(Not used)
195	I	DVCC33	+2.8V
196	I	DVCC2	+2.4V
197	---	NC	(Not used)
198	---	NC	(Not used)
199	---	NC	(Not used)
200	---	XT1	(Not used)
201	---	CVCCH	(Not used)
202	---	CAP1	(Not used)
203	---	CAP2	(Not used)
204	---	XT2	(Not used)
205	---	TDO	(Not used)
206	---	TDI	(Not used)
207	---	TMS	(Not used)
208	---	TRST	(Not used)
209	---	TCK	(Not used)
210	I	DVCC34	+2.8V
211	I	CVCC2	+2.4V
212	I	X1	13.5MHz Clock
213	---	CVSS	Ground
214	O	X2	13.5MHz Clock
215	---	NC	(Not used)
216	---	NC	(Not used)
217	---	NC	(Not used)
218	I	FRP	Frame Pulse
219	---	NC	(Not used)
220	I	CAM WAKEUP	Camera Ready
221	O	ARM UPDATE	Flash Memory Update
222	O	HOST REQ	Micon I/F Data Receive Request
223	---	DVSS	Ground
224	---	NC	(Not used)
225	---	NC	(Not used)
226	I	CAM VD	Camera V-sync
227	I	CAM IRQ	Camera Interrupt
228	---	NC	(Not used)
229	I	TIMER INT	Timer Interrupt
230	I	EJECT SW	Eject SW On : Low
231	---	NC	(Not used)
232	I	COVEER SW1	Cover Switch 1 Open : Low
233	I	PC ACCESS INFO	PC Access Information
234	---	NC	(Not used)
235	I	POWER SW	Power SW On : Low
236	---	NC	(Not used)
237	---	NC	(Not used)
238	---	NC	(Not used)
239	---	NC	(Not used)
240	I	DVCC34	+2.8V
241	---	NC	(Not used)
242	---	NC	(Not used)
243	I	SD ACCESS INFO	SD Access Information
244	O	DISC ACCESS LED	Disc Access LED ON : Low
245	---	NC	(Not used)
246	---	NC	(Not used)
247	O	POWER LED	Power LED On : Low
248	---	PC CONNECT LED	(Not used)
249	O	CARD ACCESS LED	Card Access LED ON : Low
250	---	DVSS	Ground
251	---	NC	(Not used)
252	I	DVCC2	+2.4V
253	---	AVSS	Ground
254	I	FNO	F Number
255	I	AVCC32	+2.8V
256	I	IR OUT	IR Detect
257	I	ZOOM SW	Zoom SW Data
258	I	BATT REF	V-Ref for Battery
259	I	REGD3VDET	+3V Detect
260	I	BATT D	Battery (D)
261	I	BATT V	Battery (V)
262	---	AVSS	Ground
263	---	UNI REMO	(Not used)
264	I	ADKEY5	Key Data 5
265	I	ADKEY4	Key Data 4
266	O	YLEVEL	Y Level Control
267	I	SENS TNP LENS	Lens Temperature Sensor
268	I	ADKEY3	Key Data 3
269	I	ADKEY1	Key Data 1
270	I	ADKEY2	Key Data 2
271	---	KIBAN	(Not used)
272	---	VSS	Ground
273	---	VSS	Ground
274	---	VSS	Ground
275	---	VSS	Ground
276	---	VSS	Ground
277	---	VSS	Ground
278	---	VSS	Ground
279	---	VSS	Ground
280	---	VREFL	V-Ref Low (0V)
281	I	VREFH	V-Ref High (+2.8V)
282	---	NO PIN	(Not used)
283	---	NO PIN	(Not used)
284	---	NO PIN	(Not used)

MAIN III SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

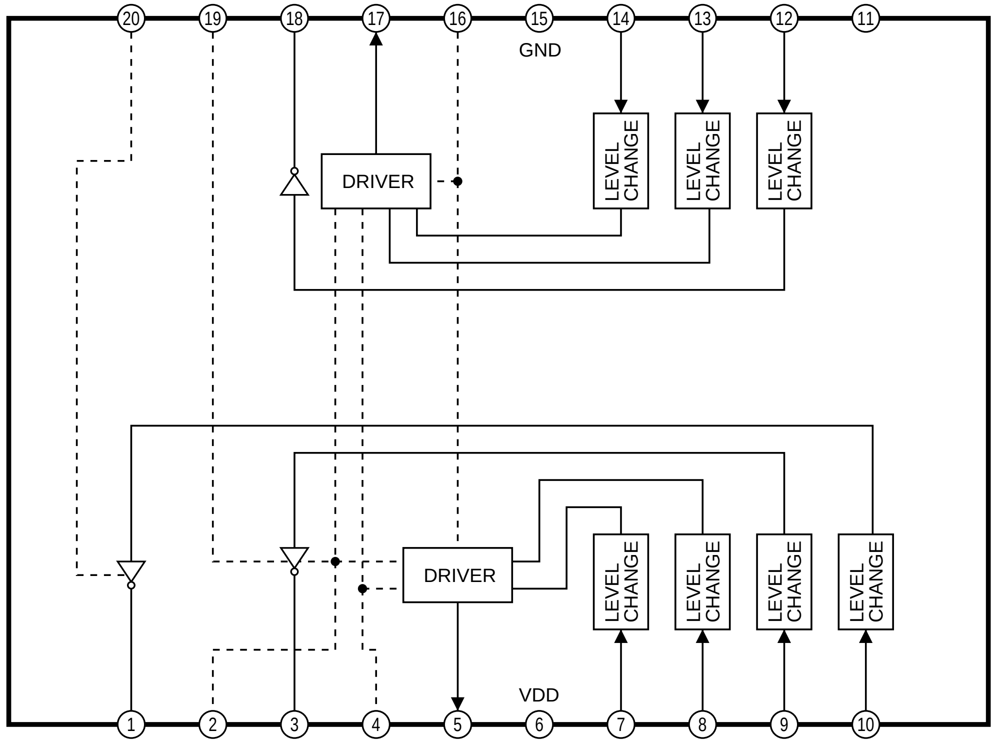

REC VIDEO SIGNAL
FP301 (TO CCD P.C.B.)
14 CCDOUT
13 GND
12 H2
11 H1
10 -7V
9 SUB
8 RESET
7 12V
6 GND
5 GND
4 V1
3 V2
2 V3
1 V4
IC302
MN52A4
(TIMING SIGNAL GENERATOR)
LINK TO I/O CHART
TEST4
NT/PAL
VDD1
VDD2
VSS
R
H1
H2
TEST3
DS1
DS2
ADCLK1
ADCLK2
VDD1
VSS
CLR
CPDM
CPOB
PBLK
FI
SUBSW
SUB
V4
V3
V2
V1
VDD1
VSS
CH1
CH2
TEST2
TEST1
LLVD
LVD
VD
HD
ID
VSS
VDD1
FCK2
DCLK
DATA
CS
FCKO
R303 PT
C319 0.1[KB]
C307 0.1[KB]
C320 PT
C321 PT
C304 0.1[KB]
C323 PT
C305 0.1[KB]
R306 3300
R307 3300
R308 3300
C311 4.7 [1608]
R305 220
C322 PT
D301 MA2S111008
TO M VIII (B-1) 177 DS1
TO M VIII (B-1) 178 DS2
TO M VIII (B-1) 179 ADCLK1
TO M VIII (B-1) 180 CPOB
TO M II (C-1) 143 CG_RST
TO M II (B-1) 141 CGAFE_CLK
TO M II (B-1) 142 CGAFE_DTO
TO M II (B-1) 140 CAM_CG_CS
TO M II (A-1) 144 CAM_D3OFF
CCDOUT 181 TO M VIII (B-1)
CAMFCK 182 TO M V (A-8)
CAMHD 183 TO M V (A-8)
CAMVD 165 TO M II (B-12), V(A-8)
L305 10U [2012]
L306 10U [2012]
IC301
C0CBCBC00130
(+3.3V REGULATOR)
+3.3V REG.
GND
AF+5V
C301 1[KB] [1608]
C303 1[KB] [1608]
C308 0.1[KB]
IC303
H1A3605B0003
(36MHz OSC)
C318 1000P[KB]
C312 0.1[KB] [1608]
[3216]
C315 4R7
IC304
C1AB00002039
(CCD V-DRIE)
VHH
VM24
V4O
V3O
VH
GND
V3I
CH2
V4I
NC
SUBO
VL
V2O
VM13
V1O
VDD
V1I
CH1
V2I
SUBI
R309 100K
D302 MA2S728008
[SS-MINI]
C317 0
C314 0 [3216]
[3216]
C316 0.1[KB]
CAMERA+12V
CAMERA-7V
REGD+2.8V
A
B
C
D
1
2
3
4
5
6

LINK TO VOLTAGE CHART
LSJB8314
MAIN III SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

I/O CHART OF IC302

Pin No.	I/O	Signal Name	Description
1	-	LLVD	(Not used)
2	-	LVD	(Not used)
3	O	VD	V-sync pulse
4	O	HD	H-sync pulse
5	-	ID	(Not used)
6	-	VSS	Ground
7	I	VDD1	+3.0V
8	I	FCK2	2FCK clock (36MHz)
9	I	DCLK	TG serial clock
10	I	DATA	TG serial data
11	I	CS	TG chip select : low
12	O	FCK0	FCK clock (18MHz)
13	-	TEST1	(Not used)
14	-	TEST2	(Not used)
15	O	CH2	Charge pulse 2
16	O	CH1	Charge pulse 1
17	-	VSS	Ground
18	I	VDD1	+3.0V
19	O	V1	V1 pulse
20	O	V2	V2 pulse
21	O	V3	V3 pulse
22	O	V4	V4 pulse
23	O	SUB	Sub control pulse
24	-	SUBSW	(Not used)
25	-	VSS	Ground
26	I	VDD2	+3.2V
27	O	H2	H2 pulse
28	-	VSS	Ground
29	I	VDD2	+3.2V
30	O	H1	H1 pulse
31	O	R	Reset pulse
32	-	VSS	Ground
33	I	VDD2	+3.2V
34	I	VDD1	+3.0V
35	O	FCK6M	6MHz clock
36	-	TEST4	(Not used)
37	-	TEST3	(Not used)
38	O	DS1	Sampling pulse 1
39	O	DS2	Sampling pulse 2
40	O	ADCLK1	A/D clock 1
41	-	ADCLK2	(Not used)
42	I	VDD1	+3.0V
43	-	VSS	Ground
44	-	CLR	(Not used)
45	-	CPDM	(Not used)
46	O	CPOB	Optical black clamp pulse
47	-	PBLK	(Not used)
48	-	FI	(Not used)

IC304 IC- DETAIL BLOCK DIAGRAM

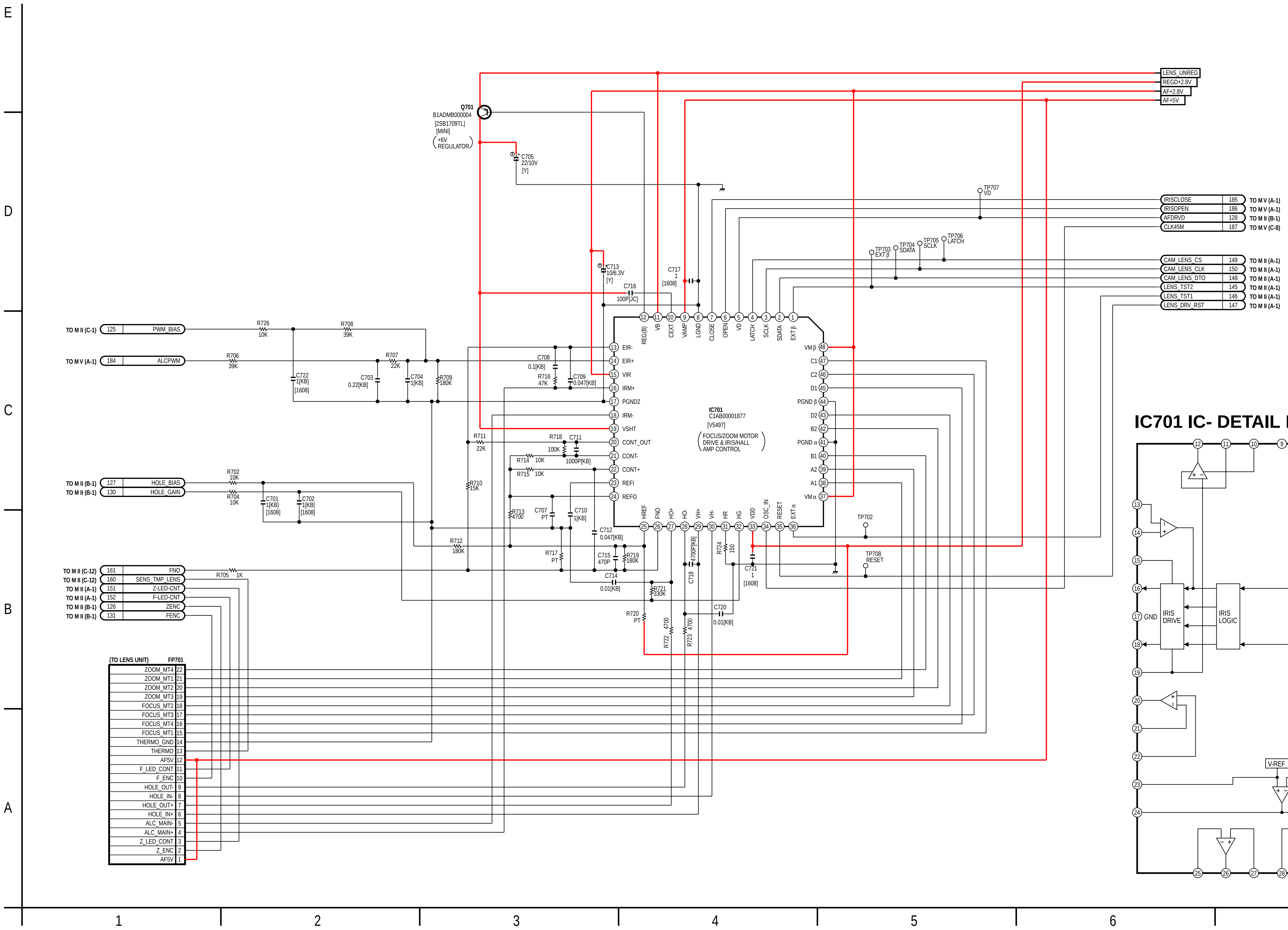

20
19
18
17
16
15
14
13
12
11
GND
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
VDD
1
2
3
4
5
6
7
8
9
10

MAIN IV SCHEMATIC DIAGRAM

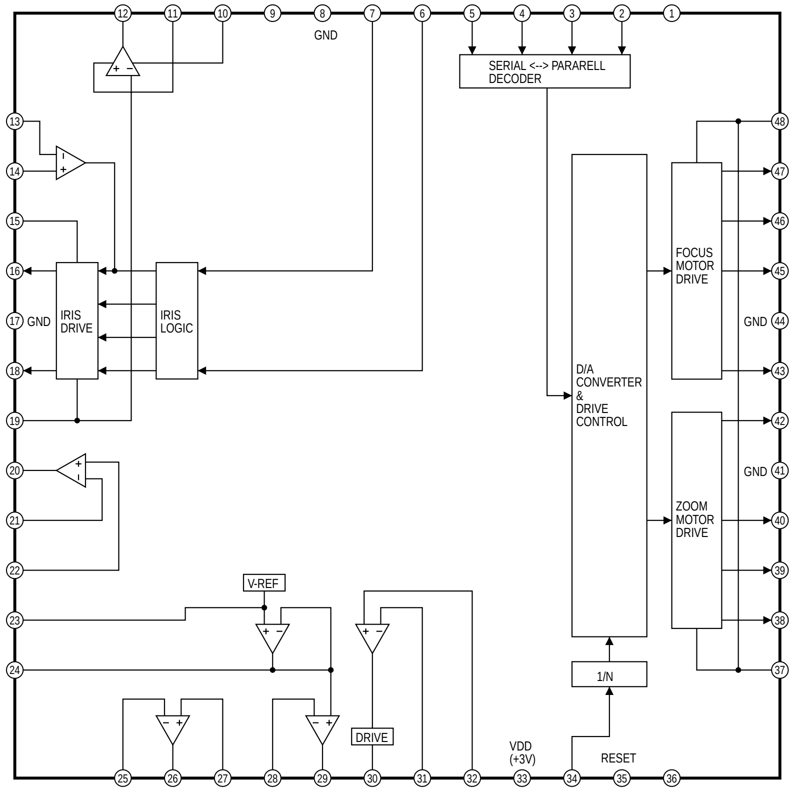
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


E
D
C
B
A
1
2
3
4
5
6
7
Q701
B1ADMB000004
[2SB1709TL]
[MINI]
+6V REGULATOR
C705 22/10V [Y]
C713 10/6.3V [Y]
C716 100P[JC]
C717 1 [1608]
TP707 VD
TP703 EXT β
TP704 SDATA
TP705 SCLK
TP706 LATCH
LENS_UNREG
REGD+2.8V
AF+2.8V
AF+5V
IRISCLOSE 185 TO M V (A-1)
IRISOPEN 186 TO M V (A-1)
AFDRVD 128 TO M II (B-1)
CLK45M 187 TO M V (C-8)
CAM_LENS_CS 149 TO M II (A-1)
CAM_LENS_CLK 150 TO M II (A-1)
CAM_LENS_DTO 148 TO M II (A-1)
LENS_TST2 145 TO M II (A-1)
LENS_TST1 146 TO M II (A-1)
LENS_DRV_RST 147 TO M II (A-1)
TO M II (C-1) 125 PWM_BIAS
TO M V (A-1) 184 ALCPWM
R726 10K
R708 39K
R706 39K
R707 22K
C722 1[KB] [1608]
C703 0.22[KB]
C704 1[KB]
R709 180K
C708 0.1[KB]
R716 47K
C709 0.047[KB]
R711 22K
R718 100K
C711 1000P[KB]
R714 10K
R715 10K
R710 15K
R713 4700
C707 PT
C710 1[KB]
C712 0.047[KB]
R712 180K
R717 PT
C715 470P
R719 180K
C714 0.01[KB]
R721 330K
R720 PT
R722 4700
R723 4700
C718 4700P[KB]
R724 150
C721 1 [1608]
C720 0.01[KB]
TP702
TP708 RESET
TO M II (B-1) 127 HOLE_BIAS
TO M II (B-1) 130 HOLE_GAIN
R702 10K
R704 10K
C701 1[KB] [1608]
C702 1[KB] [1608]
TO M II (C-12) 161 FNO
TO M II (C-12) 160 SENS_TMP_LENS
TO M II (A-1) 151 Z-LED-CNT
TO M II (A-1) 152 F-LED-CNT
TO M II (B-1) 126 ZENC
TO M II (B-1) 131 FENC
R705 1K
IC701
C1AB00001877
[V5497]
FOCUS/ZOOM MOTOR DRIVE & IRIS/HALL AMP CONTROL
REG(B) VB CEXT VAMP LGND CLOSE OPEN VD LATCH SCLK SDATA EXT β
EIR- EIR+ VIR IRM+ PGND2 IRM- VSHT CONT_OUT CONT- CONT+ REFI REFO
VM β C1 C2 D1 PGND β D2 B2 PGND α B1 A2 A1 VM α
HREF FNO HO+ HO- VH+ VH- HR HG VDD OSC_IN RESET EXT α
(TO LENS UNIT) FP701
ZOOM_MT4 22
ZOOM_MT1 21
ZOOM_MT2 20
ZOOM_MT3 19
FOCUS_MT2 18
FOCUS_MT3 17
FOCUS_MT4 16
FOCUS_MT1 15
THERMO_GND 14
THERMO 13
AF5V 12
F_LED_CONT 11
F_ENC 10
HOLE_OUT- 9
HOLE_IN- 8
HOLE_OUT+ 7
HOLE_IN+ 6
ALC_MAIN- 5
ALC_MAIN+ 4
Z_LED_CONT 3
Z_ENC 2
AF5V 1

IC701 IC- DETAIL BLOCK DIAGRAM


GND
SERIAL <--> PARARELL DECODER
IRIS DRIVE
IRIS LOGIC
FOCUS MOTOR DRIVE
D/A CONVERTER & DRIVE CONTROL
ZOOM MOTOR DRIVE
GND
GND
V-REF
DRIVE
1/N
VDD (+3V)
RESET

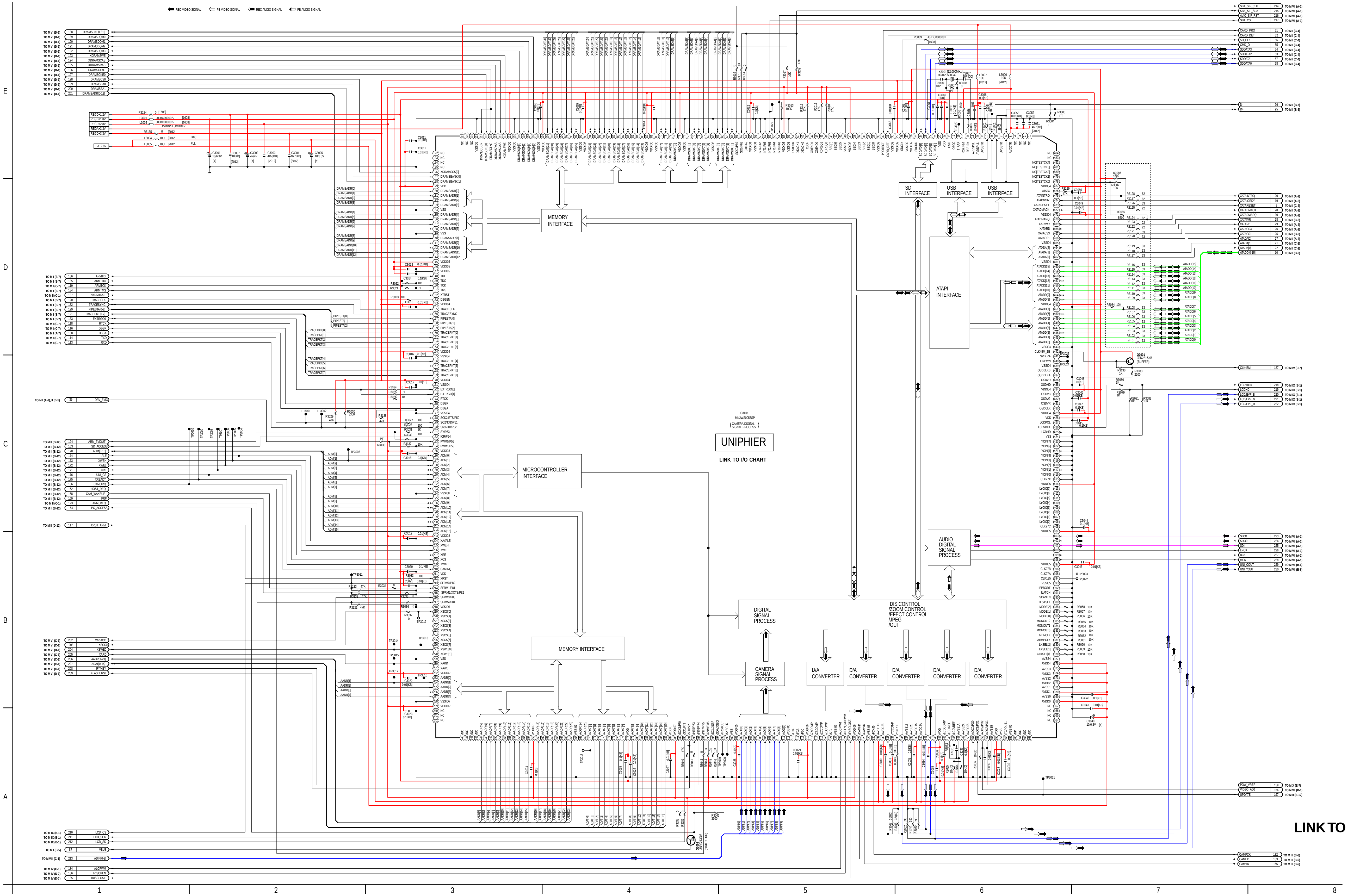
LINK TO VOLTAGE CHART

MAIN V SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
IC3001
MN2WS0056SP
(CAMERA DIGITAL SIGNAL PROCESS)
UNIPHIER
LINK TO I/O CHART
MEMORY INTERFACE
MICROCONTROLLER INTERFACE
MEMORY INTERFACE
SD INTERFACE
USB INTERFACE
USB INTERFACE
ATAPI INTERFACE
AUDIO DIGITAL SIGNAL PROCESS
DIGITAL SIGNAL PROCESS
DIS CONTROL /ZOOM CONTROL /EFECT CONTROL /JPEG /GUI
CAMERA SIGNAL PROCESS
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
X3001 (27.000MHz)
Q3001 2SD2216J0L (BUFFER)
Q3002 UNR32A100L (SWITCHING)
A
B
C
D
E
1
2
3
4
5
6
7
8

LINK TO VOLTAGE CHART

I/O CHART OF IC3001 (1/2)

Pin No.	I/O	Signal Name	Description
1	---	NC	(Not used)
2	---	NC	(Not used)
3	---	NC	(Not used)
4	---	NC	(Not used)
5	I	AVDDTR	+3.3V
6	I/O	DP	USB Data (+)
7	---	AVSSTR	Ground
8	I/O	RSDP	USB Data (+)
9	I/O	DM	USB Data (-)
10	I/O	RSDM	USB Data (-)
11	---	AVSSTR	Ground
12	I	AVDDPLL	+3.3V
13	---	AVSSPLL	Ground
14	---	RES10K	(Not used)
15	---	Rpu Pad	(Not used)
16	---	T AAP	(Not used)
17	O	OSCO	12MHz Clock
18	I	OSCI	12MHz Clock
19	I	VDD	+1.2V
20	---	VSS	Ground
21	I/O	SDDATA(0)	SD Card Data 0
22	I/O	SDDATA(1)	SD Card Data 1
23	I/O	SDDATA(2)	SD Card Data 2
24	I/O	SDDATA(3)	SD Card Data 3
25	I/O	SDCMD	SD CMD
26	I	VDDIO2	+3.3V
27	---	VSSIO2	Ground
28	O	SDCLK	SD Clock
29	I	VDDIO2	+3.3V
30	---	VSSIO2	Ground
31	I	CARD DET	SD Card Detect : Low
32	I	PROTECT	SD Card Protect : Low
33	---	VSSIO2	Ground
34	---	SBD(0)	(Not used)
35	---	SBD(1)	(Not used)
36	---	SBD(2)	(Not used)
37	---	SBD(3)	(Not used)
38	---	SBD(4)	(Not used)
39	I	VDDIO3	+2.8V
40	---	VSSIO3	Ground
41	---	SBD(5)	(Not used)
42	---	SBD(6)	(Not used)
43	---	SBD(7)	(Not used)
44	---	XDREQ0	(Not used)
45	---	XDREQ1	(Not used)
46	---	XDEND0	(Not used)
47	---	XDEND1	(Not used)
48	---	XSOF	(Not used)
49	---	XDACK0	(Not used)
50	---	XDACK1	(Not used)
51	---	USBCLK	(Not used)
52	---	VSSIO3	Ground
53	I	VDDIO3	+2.8V
54	O	INT0	SIF Reset : Low
55	---	INT1	(Not used)
56	O	INT2	SBA SIF CS
57	---	INT3	(Not used)
58	---	INT4	(Not used)
59	---	VSSIO1	Ground
60	I	VDDIO1	+1.8V
61	I	SIO	Audio IF Serial Data 1
62	O	SOO	Audio IF Serial Data 0
63	O	SCKO	Audio IF Serial Clock
64	I/O	DRAMSDAT(0)	SDRAM Data 0
65	I/O	DRAMSDAT(1)	SDRAM Data 1
66	I/O	DRAMSDAT(2)	SDRAM Data 2
67	I/O	DRAMSDAT(3)	SDRAM Data 3
68	---	VSSIO5	Ground
69	I/O	DRAMSDAT(4)	SDRAM Data 4
70	I/O	DRAMSDAT(5)	SDRAM Data 5

Pin No.	I/O	Signal Name	Description
71	I/O	DRAMSDAT(6)	SDRAM Data 6
72	I/O	DRAMSDAT(7)	SDRAM Data 7
73	I/O	DRAMSDAT(8)	SDRAM Data 8
74	---	VSSIO5	Ground
75	I	VDDIO5	+1.8V
76	I/O	DRAMSDAT(9)	SDRAM Data 9
77	I/O	DRAMSDAT(10)	SDRAM Data 10
78	I/O	DRAMSDAT(11)	SDRAM Data 11
79	I/O	DRAMSDAT(12)	SDRAM Data 12
80	---	VSSIO5	Ground
81	I	VDDIO5	+1.8V
82	I	VDDIO5	+1.8V
83	I/O	DRAMSDAT(13)	SDRAM Data 13
84	I/O	DRAMSDAT(14)	SDRAM Data 14
85	I/O	DRAMSDAT(15)	SDRAM Data 15
86	I/O	DRAMSDAT(16)	SDRAM Data 16
87	I/O	DRAMSDAT(17)	SDRAM Data 17
88	I/O	DRAMSDAT(18)	SDRAM Data 18
89	I/O	DRAMSDAT(19)	SDRAM Data 19
90	I/O	DRAMSDAT(20)	SDRAM Data 20
91	I/O	DRAMSDAT(21)	SDRAM Data 21
92	I/O	DRAMSDAT(22)	SDRAM Data 22
93	I/O	DRAMSDAT(23)	SDRAM Data 23
94	I/O	DRAMSDAT(24)	SDRAM Data 24
95	I	VDDIO5	+1.8V
96	---	VSSIO5	Ground
97	I/O	DRAMSDAT(25)	SDRAM Data 25
98	I/O	DRAMSDAT(26)	SDRAM Data 26
99	I/O	DRAMSDAT(27)	SDRAM Data 27
100	I/O	DRAMSDAT(28)	SDRAM Data 28
101	I/O	DRAMSDAT(29)	SDRAM Data 29
102	I/O	DRAMSDAT(30)	SDRAM Data 30
103	I/O	DRAMSDAT(31)	SDRAM Data 31
104	I	VDDIO5	+1.8V
105	---	VSSIO5	Ground
106	O	DRAMSDQM(0)	SDRAM DQM 0
107	O	DRAMSDQM(1)	SDRAM DQM 1
108	O	DRAMSDQM(2)	SDRAM DQM 2
109	O	DRAMSDQM(3)	SDRAM DQM 3
110	---	VSSIO5	Ground
111	I	VDDIO5	+1.8V
112	O	XDRAMSWE	SDRAM Write Enable : Low
113	O	XDRAMSCAS	SDRAM Column Address Strobe : Low
114	O	XDRAMSRAS	SDRAM Row Address Strobe : Low
115	O	DRAMSCLKO	SDRAM Clock
116	O	DRAMSCKE(0)	SDRAM Clock Enable
117	I	DRAMSCLKIN	SDRAM Clock
118	---	VSSIO5	Ground
119	---	NC	(Not used)
120	---	NC	(Not used)
121	---	NC	(Not used)
122	---	NC	(Not used)
123	---	NC	(Not used)
124	---	NC	(Not used)
125	---	NC	(Not used)
126	O	XDRAMSCS(0)	SDRAM CS : Low
127	O	DRAMSBANK(0)	SDRAM Bank 0 Select Address
128	O	DRAMSBANK(1)	SDRAM Bank 1 Select Address
129	I	VDD	+1.2V
130	O	DRAMSADR(0)	SDRAM Address 0
131	O	DRAMSADR(1)	SDRAM Address 1
132	O	DRAMSADR(2)	SDRAM Address 2
133	O	DRAMSADR(3)	SDRAM Address 3
134	---	VSS	Ground
135	O	DRAMSADR(4)	SDRAM Address 4
136	O	DRAMSADR(5)	SDRAM Address 5
137	O	DRAMSADR(6)	SDRAM Address 6
138	O	DRAMSADR(7)	SDRAM Address 7
139	---	VSS	Ground
140	O	DRAMSADR(8)	SDRAM Address 8

Pin No.	I/O	Signal Name	Description
141	O	DRAMSADR(9)	SDRAM Address 9
142	O	DRAMSADR(10)	SDRAM Address 10
143	O	DRAMSADR(11)	SDRAM Address 11
144	O	DRAMSADR(12)	SDRAM Address 12
145	I	VDDIO5	+1.8V
146	I	VDDIO5	+1.8V
147	---	VSSIO5	Ground
148	---	TDI	(Not used)
149	---	TDO	(Not used)
150	---	TCK	(Not used)
151	---	TMS	(Not used)
152	---	XTRST	(Not used)
153	---	DBGEN	(Not used)
154	I	VDDIO4	+3.3V
155	---	TRACECLK	(Not used)
156	---	TRACESYNC	(Not used)
157	---	PIPESTA(0)	(Not used)
158	---	PIPESTA(1)	(Not used)
159	---	PIPESTA(2)	(Not used)
160	---	TRACEPKT(0)	(Not used)
161	---	TRACEPKT(1)	(Not used)
162	---	TRACEPKT(2)	(Not used)
163	---	TRACEPKT(3)	(Not used)
164	I	VDDIO4	+3.3V
165	---	VSSIO4	Ground
166	---	TRACEPKT(4)	(Not used)
167	---	TRACEPKT(5)	(Not used)
168	---	TRACEPKT(6)	(Not used)
169	---	TRACEPKT(7)	(Not used)
170	I	VDDIO4	+3.3V
171	---	VSSIO4	Ground
172	---	EXTRGO(0)	(Not used)
173	---	EXTRGO(1)	(Not used)
174	---	RTCK	(Not used)
175	---	DBGR	(Not used)
176	---	DBGA	(Not used)
177	---	VSSIO4	Ground
178	---	SCK2 / RTS	(Not used)
179	---	SO2 / TXD	(Not used)
180	---	SI2 / RXD	(Not used)
181	O	SY	Arm Core Watch
182	O	ICR	SD Access Information
183	---	PWMO	(Not used)
184	---	PWMI	(Not used)
185	I	VDDIO8	+2.8V
186	I/O	ADM(0)	Address / Data 0
187	I/O	ADM(1)	Address / Data 1
188	I/O	ADM(2)	Address / Data 2
189	I/O	ADM(3)	Address / Data 3
190	I/O	ADM(4)	Address / Data 4
191	I/O	ADM(5)	Address / Data 5
192	I/O	ADM(6)	Address / Data 6
193	I/O	ADM(7)	Address / Data 7
194	---	VSSIO8	Ground
195	I/O	ADM(8)	Address / Data 8
196	I/O	ADM(9)	Address / Data 9
197	I/O	ADM(10)	Address / Data 10
198	I/O	ADM(11)	Address / Data 11
199	I/O	ADM(12)	Address / Data 12
200	I/O	ADM(13)	Address / Data 13
201	I/O	ADM(14)	Address / Data 14
202	I/O	ADM(15)	Address / Data 15
203	I	VDDIO8	+2.8V
204	I	XAVALE	Address Latch Enable
205	I	XWEH	Write Enable : High
206	I	XWEL	Write Enable : Low
207	I	XRE	Read Enable : Low
208	I	XCS	CS : Low
209	O	XWAIT	UNIFIER Ready : Low
210	O	CAMIRG	Camera Interrupt

Pin No.	I/O	Signal Name	Description
211	I	VDD	+1.2V
212	I	XRST	Reset : Low
213	O	SFRM0	LCD / EVF Chip Select
214	O	SFRM1	Camera Ready
215	O	SFRM2/XCTS	Frame Pulse
216	O	SFRM3	Write Protect for Flash Memory
217	O	SFRM4	Micon I/F Data Send Reguest
218	---	VSSIO7	Ground
219	O	XSCS(0)	Flash Memory CS : Low
220	---	XSCS(1)	(Not used)
221	---	XSCS(2)	(Not used)
222	---	XSCS(3)	(Not used)
223	---	XSCS(4)	(Not used)
224	---	XSCS(5)	(Not used)
225	---	XSCS(6)	(Not used)
226	---	XSCS(7)	(Not used)
227	O	XSWE(0)	Write Enable for Flash Memory
228	---	XSWE(1)	(Not used)
229	---	VSS	Ground
230	O	XARD	Read Enable for Flash Memory
231	---	XAWE	(Not used)
232	I	VDDIO7	+2.8V
233	---	AADR(0)	(Not used)
234	I/O	AADR(1)	Flash Memory Address 1
235	I/O	AADR(2)	Flash Memory Address 2
236	I/O	AADR(3)	Flash Memory Address 3
237	I/O	AADR(4)	Flash Memory Address 4
238	---	VSSIO7	Ground
239	I	VDDIO7	+2.8V
240	---	NC	(Not used)
241	---	NC	(Not used)
242	---	NC	(Not used)
243	---	NC	(Not used)
244	---	NC	(Not used)
245	---	NC	(Not used)
246	---	NC	(Not used)
247	I/O	AADR(5)	Flash Memory Address 5
248	I/O	AADR(6)	Flash Memory Address 6
249	I/O	AADR(7)	Flash Memory Address 7
250	I/O	AADR(8)	Flash Memory Address 8
251	I/O	AADR(9)	Flash Memory Address 9
252	I/O	AADR(10)	Flash Memory Address 10
253	I/O	AADR(11)	Flash Memory Address 11
254	I/O	AADR(12)	Flash Memory Address 12
255	I/O	AADR(13)	Flash Memory Address 13
256	I/O	AADR(14)	Flash Memory Address 14
257	I/O	AADR(15)	Flash Memory Address 15
258	I	VDDIO7	+2.8V
259	I/O	AADR(16)	Flash Memory Address 16
260	I/O	AADR(17)	Flash Memory Address 17
261	I/O	AADR(18)	Flash Memory Address 18
262	I/O	AADR(19)	Flash Memory Address 19
263	I/O	AADR(20)	Flash Memory Address 20
264	I/O	AADR(21)	Flash Memory Address 21
265	I/O	AADR(22)	Flash Memory Address 22
266	I/O	AADR(23)	Flash Memory Address 23
267	---	VSSIO7	Ground
268	---	AADR(24)	(Not used)
269	---	AADR(25)	(Not used)
270	I/O	ADAT(0)	Flash Memory Data 0
271	I/O	ADAT(1)	Flash Memory Data 1
272	I/O	ADAT(2)	Flash Memory Data 2
273	I/O	ADAT(3)	Flash Memory Data 3
274	I/O	ADAT(4)	Flash Memory Data 4
275	I/O	ADAT(5)	Flash Memory Data 5
276	I/O	ADAT(6)	Flash Memory Data 6
277	I/O	ADAT(7)	Flash Memory Data 7
278	I	VDD	+1.2V
279	I/O	ADAT(8)	Flash Memory Data 8
280	I/O	ADAT(9)	Flash Memory Data 9

I/O CHART OF IC3001 (2/2)

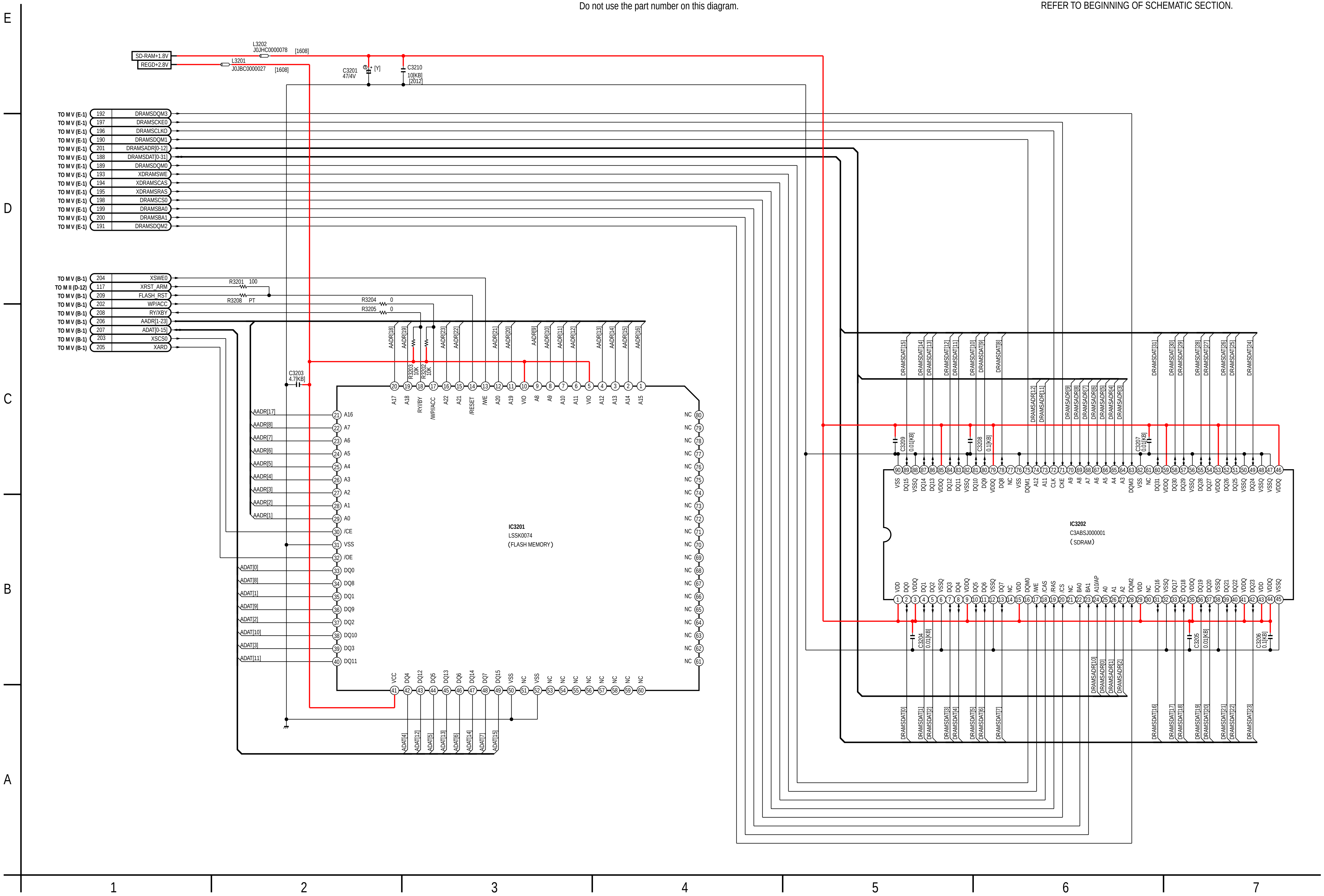
Pin No.	I/O	Signal Name	Description
281	I/O	ADAT(10)	Flash Memory Data 10
282	I/O	ADAT(11)	Flash Memory Data 11
283	I/O	ADAT(12)	Flash Memory Data 12
284	I/O	ADAT(13)	Flash Memory Data 13
285	I/O	ADAT(14)	Flash Memory Data 14
286	I/O	ADAT(15)	Flash Memory Data 15
287	---	XSDK	(Not used)
288	I	VDDI07	+2.8V
289	O	SCK1	LCD / EVF Serial Clock
290	O	SO1	LCD / EVF Serial Data
291	---	SI1	(Not used)
292	I	INT5	PC Access Information
293	I	INT6	Flash Memory Interrupt
294	I	INT7	Micon I/F Data Receive Request
295	---	XNMI	(Not used)
296	---	SCL	(Not used)
297	---	SDA	(Not used)
298	---	XRSTOUT	(Not used)
299	---	SYSCLK	(Not used)
300	---	VSS	Ground
301	I	VDDI05	+2.8V
302	I	ADIN(0)	Camea Data 0
303	I	ADIN(1)	Camea Data 1
304	I	ADIN(2)	Camea Data 2
305	I	ADIN(3)	Camea Data 3
306	I	ADIN(4)	Camea Data 4
307	I	ADIN(5)	Camea Data 5
308	I	ADIN(6)	Camea Data 6
309	I	ADIN(7)	Camea Data 7
310	I	ADIN(8)	Camea Data 8
311	I	ADO(9)	Camea Data 9
312	---	VSSI06	Ground
313	---	FCA	(Not used)
314	---	FCB	(Not used)
315	---	F2C	(Not used)
316	I	VDDI06	+2.8V
317	---	XACOMP	(Not used)
318	---	ZBCOMP	(Not used)
319	---	ZCCOMP	(Not used)
320	---	ZDCOMP	(Not used)
321	---	SIG	(Not used)
322	---	VSSI06	Ground
323	O	ALCPWM	ALC PWM Control
324	O	OPEN NDPWM	Iris Open Control
325	O	IRISCLOSE	Iris Close Control
326	I	VDDI06	+2.8V
327	I	CAMHD	Camera H-sync
328	I	CAMVD	Camera V-sync
329	---	VSSI05	Ground
330	I	FCK45	18MHz Clock
331	I	AVDD18	+2.8V
332	I	AVDD28	+2.8V
333	O	YOUT	Luminance
334	---	YCCOMP	(Not used)
335	---	YCIREF	(Not used)
336	O	COUT	Chrominance
337	---	AVSS18	Ground
338	---	AVSS28	Ground
339	I	AVDD1A	+2.8V
340	I	AVDD2A	+2.8V
341	O	LCDROUT	LCD / EVF-R signal
342	O	LCDGOUT	LCD / EVF-G signal
343	O	LCDBOUT	LCD / EVF-B signal
344	I	VDD	+1.2V
345	---	LCDCOMP	(Not used)
346	---	LCDIREF	(Not used)
347	---	LCDVREF	(Not used)
348	---	AVSS1A	Ground
349	---	AVSS2A	Ground
350	I	AVDD05	+2.8V
351	---	ADC0	(Not used)
352	I	ADC1	Flash Memory Update
353	I	ADC2	Y Level Control
354	I	ADC3	V-ref for Battery
355	---	AVSS5	Ground
356	I	VDD	+1.2V
357	---	VSS	Ground
358	---	TCPOVT1	(Not used)
359	---	VSSI05	Ground
360	---	NP	(Not used)
361	---	NC	(Not used)
362	---	NC	(Not used)
363	---	NC	(Not used)
364	---	NC	(Not used)
365	---	NC	(Not used)
366	---	NC	(Not used)
367	---	NC	(Not used)
368	I	AVDD0	+2.8V
369	---	AVSS0	Ground
370	I	AVDD1	+2.8V
371	---	AVSS1	Ground
372	I	AVDD2	+2.8V
373	---	AVSS2	Ground
374	I	AVDD3	+2.8V
375	---	AVSS3	Ground
376	I	AVDD4	+2.8V
377	---	AVSS4	Ground
378	---	CLKSEL(0)	(Not used)
379	---	LKSEL(1)	(Not used)
380	---	LKSEL(2)	(Not used)
381	---	AHMPCLK	(Not used)
382	---	MENCLK	(Not used)
383	---	MONOUT0	(Not used)
384	---	MONOUT1	(Not used)
385	---	MONOUT2	(Not used)
386	---	MODE(0)	(Not used)
387	---	MODE(1)	(Not used)
388	---	MODE(2)	(Not used)
389	---	TESTSEL	(Not used)
390	---	SCANEN	(Not used)
391	---	ILATCH	(Not used)
392	---	IPPBODT	(Not used)
393	---	VSSI05	Ground
394	---	CLK135	(Not used)
395	---	CLK27A	(Not used)
396	---	CLK27B	(Not used)
397	I	VDDI05	+1.8V
398	O	DOMCK	Audio Master Clock
399	O	DOBCK	Audio Bit Clock
400	O	DOLRCK	Audio L / R Clock
401	O	DODAT	Audio Data 2
402	I	AIDAT1	Audio Data 0
403	I	AIDAT2	Audio Data 1
404	I	VDDI05	+1.8V
405	---	CLK27C	(Not used)
406	---	LYCIO(0)	(Not used)
407	---	LYCIO(1)	(Not used)
408	---	LYCIO(2)	(Not used)
409	---	LYCIO(3)	(Not used)
410	---	LYCIO(4)	(Not used)
411	---	LYCIO(5)	(Not used)
412	---	LYCIO(6)	(Not used)
413	---	LYCIO(7)	(Not used)
414	I	VDDI05	+1.8V
415	---	CLK27X	(Not used)
416	---	YCIN(0)	(Not used)
417	---	YCIN(1)	(Not used)
418	---	YCIN(2)	(Not used)
419	---	YCIN(3)	(Not used)
420	---	YCIN(4)	(Not used)
421	---	YCIN(5)	(Not used)
422	---	YCIN(6)	(Not used)
423	---	YCIN(7)	(Not used)
424	---	VSS	Ground
425	O	LCDHD	LCD / EVF H-sync
426	O	LCDVBLK	LCD / EVF V-sync
427	---	LCDPOL	(Not used)
428	I	VDD	+1.2V
429	I	VDDI04	+3.3V
430	---	OSDCLK	(Not used)
431	---	OSDVR	(Not used)
432	---	OSDVG	(Not used)
433	---	OSDVB	(Not used)
434	I	VDDI04	+3.3V
435	---	OSDHD	(Not used)
436	---	OSDVD	(Not used)
437	---	OSDBLKA	(Not used)
438	---	OSDBLKB	(Not used)
439	---	VSSI04	Ground
440	---	LINPWN	(Not used)
441	---	SVD ZA	(Not used)
442	O	CLK45M ZB	45MHz Clock
443	---	VSSI04	Ground
444	I/O	ATADD(0)	ATA Data 0
445	I/O	ATADD(1)	ATA Data 1
446	I/O	ATADD(2)	ATA Data 2
447	I/O	ATADD(3)	ATA Data 3
448	I/O	ATADD(4)	ATA Data 4
449	I/O	ATADD(5)	ATA Data 5
450	I/O	ATADD(6)	ATA Data 6
451	I/O	ATADD(7)	ATA Data 7
452	I	VDDI04	+3.3V
453	I/O	ATADD(8)	ATA Data 8
454	I/O	ATADD(9)	ATA Data 9
455	I/O	ATADD(10)	ATA Data 10
456	I/O	ATADD(11)	ATA Data 11
457	I/O	ATADD(12)	ATA Data 12
458	I/O	ATADD(13)	ATA Data 13
459	I/O	ATADD(14)	ATA Data 14
460	I/O	ATADD(15)	ATA Data 15
461	---	VSSI04	Ground
462	O	ATADA(0)	ATA Address 0
463	O	ATADA(1)	ATA Address 1
464	O	ATADA(2)	ATA Address 2
465	---	VSSI04	Ground
466	O	XATACS1	ATA CS1 : Low
467	O	XATACS3	ATA CS3 : Low
468	O	XATARD	ATA Read Enable : Low
469	I/O	XATAWR	ATA Write Enable : Low
470	I/O	ATADMARQ	ATA DMA Request
471	I	VDDI04	+3.3V
472	I/O	XATADMACK	ATA DMA Acknowledge
473	O	XATARESET	ATA Reset : Low
474	I/O	ATAIORDY	ATA I/O Ready
475	I/O	ATAINTRQ	ATA Interrupt
476	---	ATATX	(Not used)
477	I	VDDI04	+3.3V
478	---	NC	(Not used)
479	---	NC	(Not used)
480	---	NC	(Not used)
481	---	NC	(Not used)
482	---	NC	(Not used)
483	---	NC	(Not used)
484	---	NC	(Not used)

MAIN VI SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



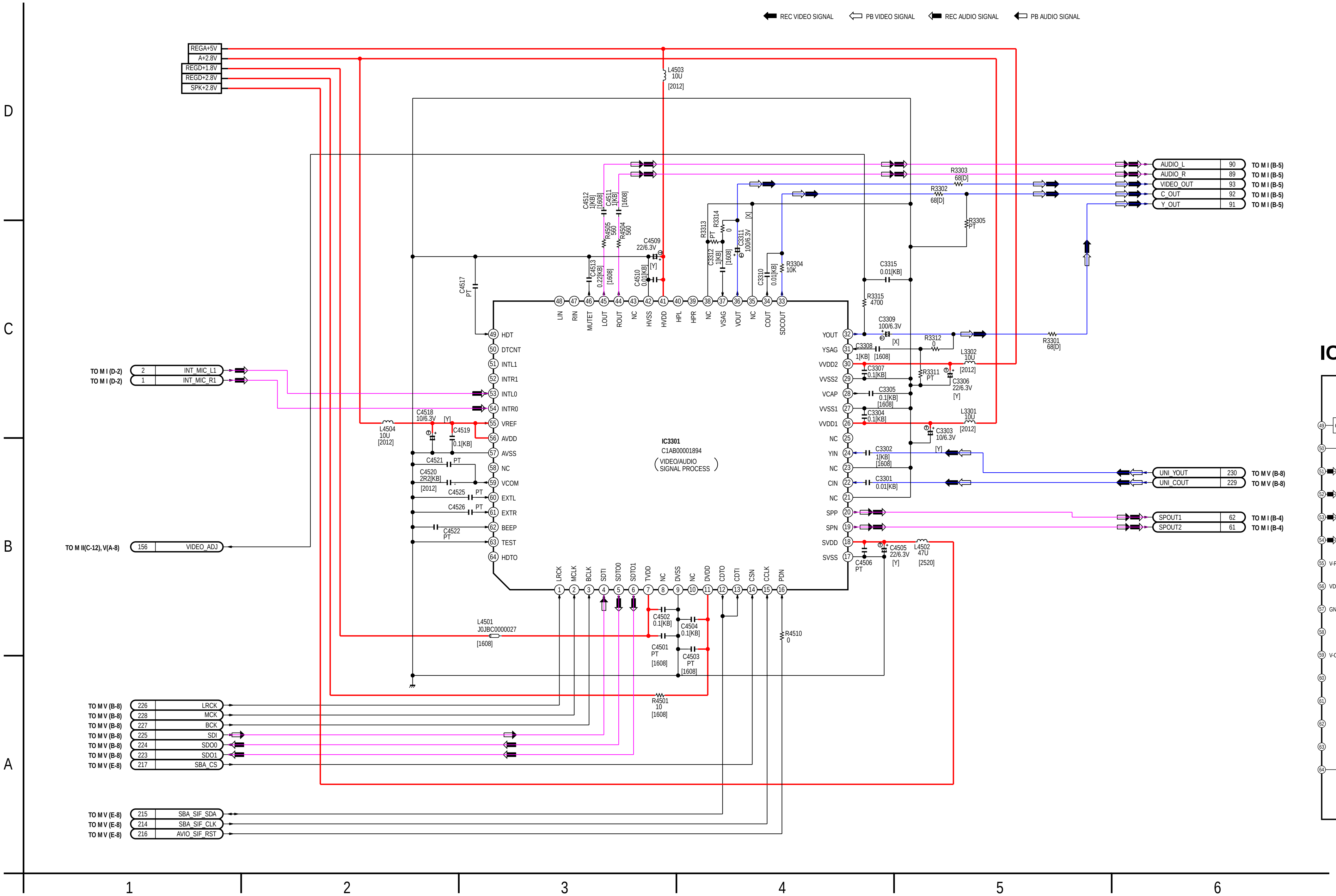
E
D
C
B
A
1
2
3
4
5
6
7
SD-RAM+1.8V
REGD+2.8V
L3202 J0JHC0000078 [1608]
L3201 J0JBC0000027 [1608]
C3201 47/4V [Y]
C3210 10[KB] [2012]
TO M V (E-1) 192 DRAMSDQM3
TO M V (E-1) 197 DRAMSCKE0
TO M V (E-1) 196 DRAMSCLKO
TO M V (E-1) 190 DRAMSDQM1
TO M V (E-1) 201 DRAMSADR[0-12]
TO M V (E-1) 188 DRAMSDAT[0-31]
TO M V (E-1) 189 DRAMSDQM0
TO M V (E-1) 193 XDRAMSWE
TO M V (E-1) 194 XDRAMSCAS
TO M V (E-1) 195 XDRAMSRAS
TO M V (E-1) 198 DRAMSCS0
TO M V (E-1) 199 DRAMSBA0
TO M V (E-1) 200 DRAMSBA1
TO M V (E-1) 191 DRAMSDQM2
TO M V (B-1) 204 XSWE0
TO M II (D-12) 117 XRST_ARM
TO M V (B-1) 209 FLASH_RST
TO M V (B-1) 202 WP/ACC
TO M V (B-1) 208 RY/XBY
TO M V (B-1) 206 AADR[1-23]
TO M V (B-1) 207 ADAT[0-15]
TO M V (B-1) 203 XSCS0
TO M V (B-1) 205 XARD
R3201 100
R3208 PT
R3204 0
R3205 0
R3203 10K
R3202 10K
C3203 4.7[KB]
IC3201
LSSK0074
(FLASH MEMORY)
IC3202
C3ABSJ000001
(SDRAM)
C3209 0.01[KB]
C3208 0.1[KB]
C3207 0.01[KB]
C3204 0.01[KB]
C3205 0.01[KB]
C3206 0.1[KB]

MAIN VII SCHEMATIC DIAGRAM

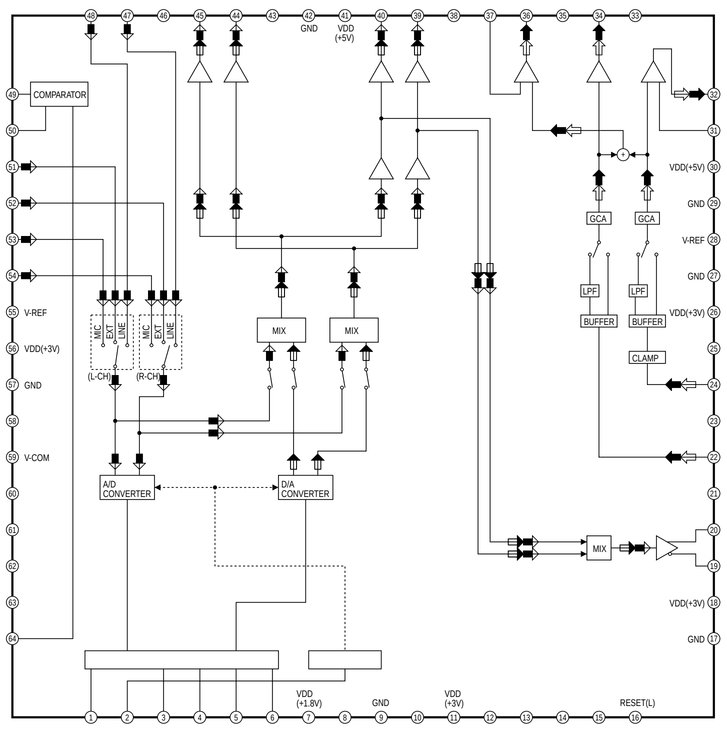
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
REGA+5V
A+2.8V
REGD+1.8V
REGD+2.8V
SPK+2.8V
L4503 10U [2012]
IC3301
C1AB00001894
(VIDEO/AUDIO SIGNAL PROCESS)
AUDIO_L 90 TO M I (B-5)
AUDIO_R 89 TO M I (B-5)
VIDEO_OUT 93 TO M I (B-5)
C_OUT 92 TO M I (B-5)
Y_OUT 91 TO M I (B-5)
UNI_YOUT 230 TO M V (B-8)
UNI_COUT 229 TO M V (B-8)
SPOUT1 62 TO M I (B-4)
SPOUT2 61 TO M I (B-4)
TO M I (D-2) 2 INT_MIC_L1
TO M I (D-2) 1 INT_MIC_R1
TO M II(C-12), V(A-8) 156 VIDEO_ADJ
TO M V (B-8) 226 LRCK
TO M V (B-8) 228 MCK
TO M V (B-8) 227 BCK
TO M V (B-8) 225 SDI
TO M V (B-8) 224 SDO0
TO M V (B-8) 223 SDO1
TO M V (E-8) 217 SBA_CS
TO M V (E-8) 215 SBA_SIF_SDA
TO M V (E-8) 214 SBA_SIF_CLK
TO M V (E-8) 216 AVIO_SIF_RST
HDT
DTCNT
INTL1
INTR1
INTL0
INTR0
VREF
AVDD
AVSS
NC
VCOM
EXTL
EXTR
BEEP
TEST
HDTO
YOUT
YSAG
VVDD2
VVSS2
VCAP
VVSS1
VVDD1
NC
YIN
NC
CIN
NC
SPP
SPN
SVDD
SVSS
LIN
RIN
MUTET
LOUT
ROUT
NC
HVSS
HVDD
HPL
HPR
NC
VSAG
VOUT
NC
COUT
SDCOUT
LRCK
MCK
BCLK
SDTI
SDTO0
SDTO1
TVDD
NC
DVSS
NC
DVDD
CDTO
CDTI
CSN
CCLK
PDN
C4512 1[KB] [1608]
C4511 1[KB] [1608]
R4505 560
R4504 560
C4509 22/6.3V [Y]
C4513 0.22[KB] [1608]
C4510 0.01[KB]
C4517 PT
R3313 PT
R3314 0
C3312 1[KB] [1608]
C3311 100/6.3V [X]
C3310 0.01[KB]
R3304 10K
R3303 68[D]
R3302 68[D]
R3305 PT
C3315 0.01[KB]
R3315 4700
C3309 100/6.3V [X]
R3312 0
R3301 68[D]
C3308 1[KB] [1608]
L3302 10U [2012]
C3307 0.1[KB]
R3311 PT
C3306 22/6.3V [Y]
C3305 0.1[KB] [1608]
C3304 0.1[KB]
L3301 10U [2012]
C3303 10/6.3V [Y]
C3302 1[KB] [1608]
C3301 0.01[KB]
C4505 22/6.3V [Y]
C4506 PT
L4502 47U [2520]
C4518 10/6.3V [Y]
C4519 0.1[KB]
L4504 10U [2012]
C4521 PT
C4520 2R2[KB] [2012]
C4525 PT
C4526 PT
C4522 PT
L4501 J0JBC0000027 [1608]
C4502 0.1[KB]
C4504 0.1[KB]
C4501 PT [1608]
C4503 PT [1608]
R4501 10 [1608]
R4510 0
D
C
B
A
1
2
3
4
5
6

IC3301 IC- DETAIL BLOCK DIAGRAM

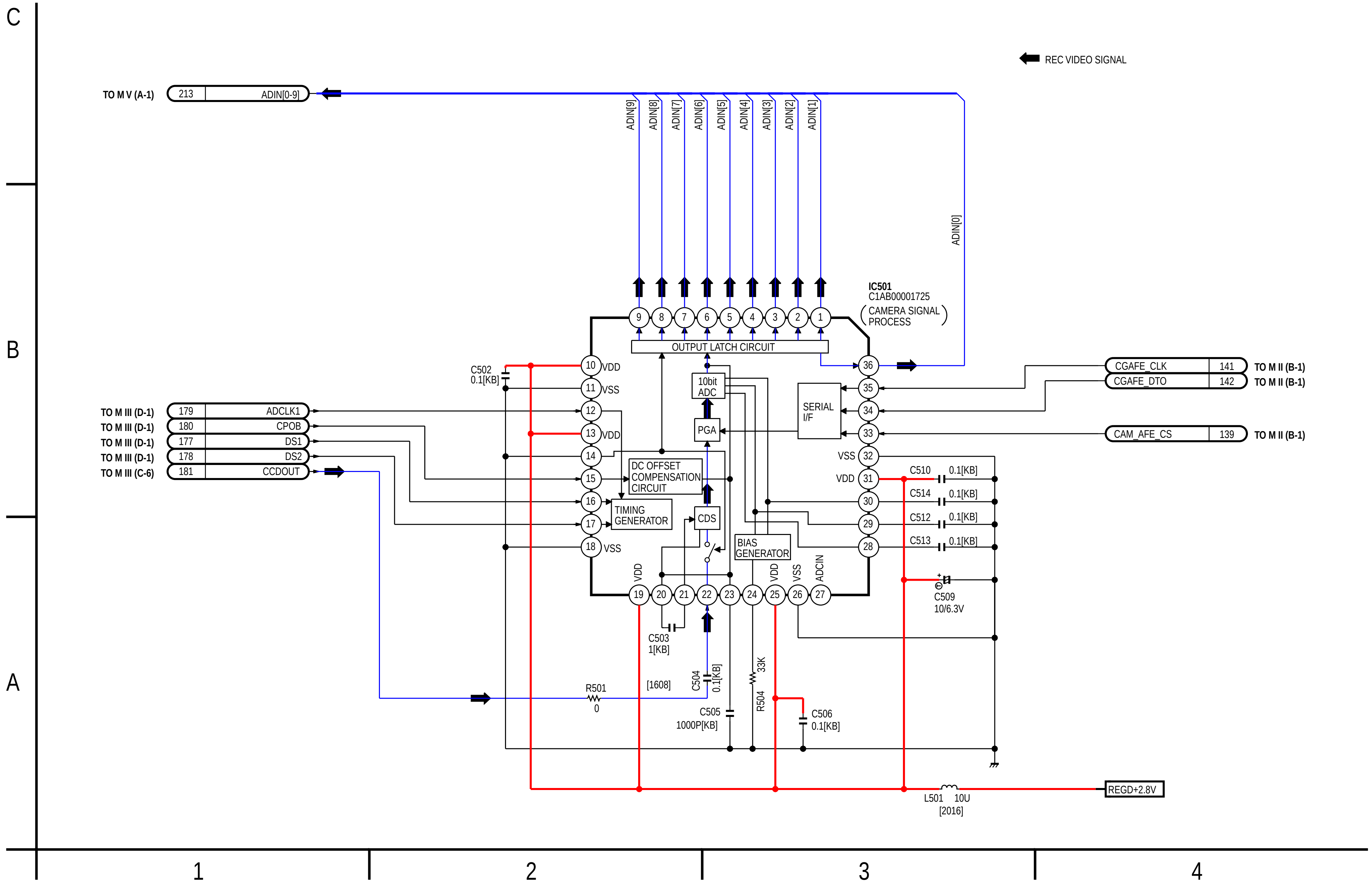

COMPARATOR
GND
VDD (+5V)
V-REF
VDD(+3V)
GND
V-COM
MIC
EXT
LINE
(L-CH)
(R-CH)
MIX
MIX
A/D CONVERTER
D/A CONVERTER
GCA
GCA
LPF
LPF
BUFFER
BUFFER
CLAMP
MIX
VDD(+5V)
GND
V-REF
GND
VDD(+3V)
VDD(+3V)
GND
VDD (+1.8V)
GND
VDD (+3V)
RESET(L)

MAIN VIII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


C
B
A
1
2
3
4
REC VIDEO SIGNAL
TO M V (A-1)
213
ADIN[0-9]
ADIN[9]
ADIN[8]
ADIN[7]
ADIN[6]
ADIN[5]
ADIN[4]
ADIN[3]
ADIN[2]
ADIN[1]
ADIN[0]
IC501
C1AB00001725
CAMERA SIGNAL
PROCESS
OUTPUT LATCH CIRCUIT
10bit
ADC
PGA
SERIAL
I/F
DC OFFSET
COMPENSATION
CIRCUIT
TIMING
GENERATOR
CDS
BIAS
GENERATOR
VDD
VSS
VDD
VSS
VSS
VDD
VDD
VSS
ADCIN
9
8
7
6
5
4
3
2
1
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
C502
0.1[KB]
TO M III (D-1)
179
ADCLK1
TO M III (D-1)
180
CPOB
TO M III (D-1)
177
DS1
TO M III (D-1)
178
DS2
TO M III (C-6)
181
CCDOUT
CGAFE_CLK
141
TO M II (B-1)
CGAFE_DTO
142
TO M II (B-1)
CAM_AFE_CS
139
TO M II (B-1)
C510
0.1[KB]
C514
0.1[KB]
C512
0.1[KB]
C513
0.1[KB]
C509
10/6.3V
C503
1[KB]
[1608]
C504
0.1[KB]
33K
R504
R501
0
C505
1000P[KB]
C506
0.1[KB]
L501
10U
[2016]
REGD+2.8V

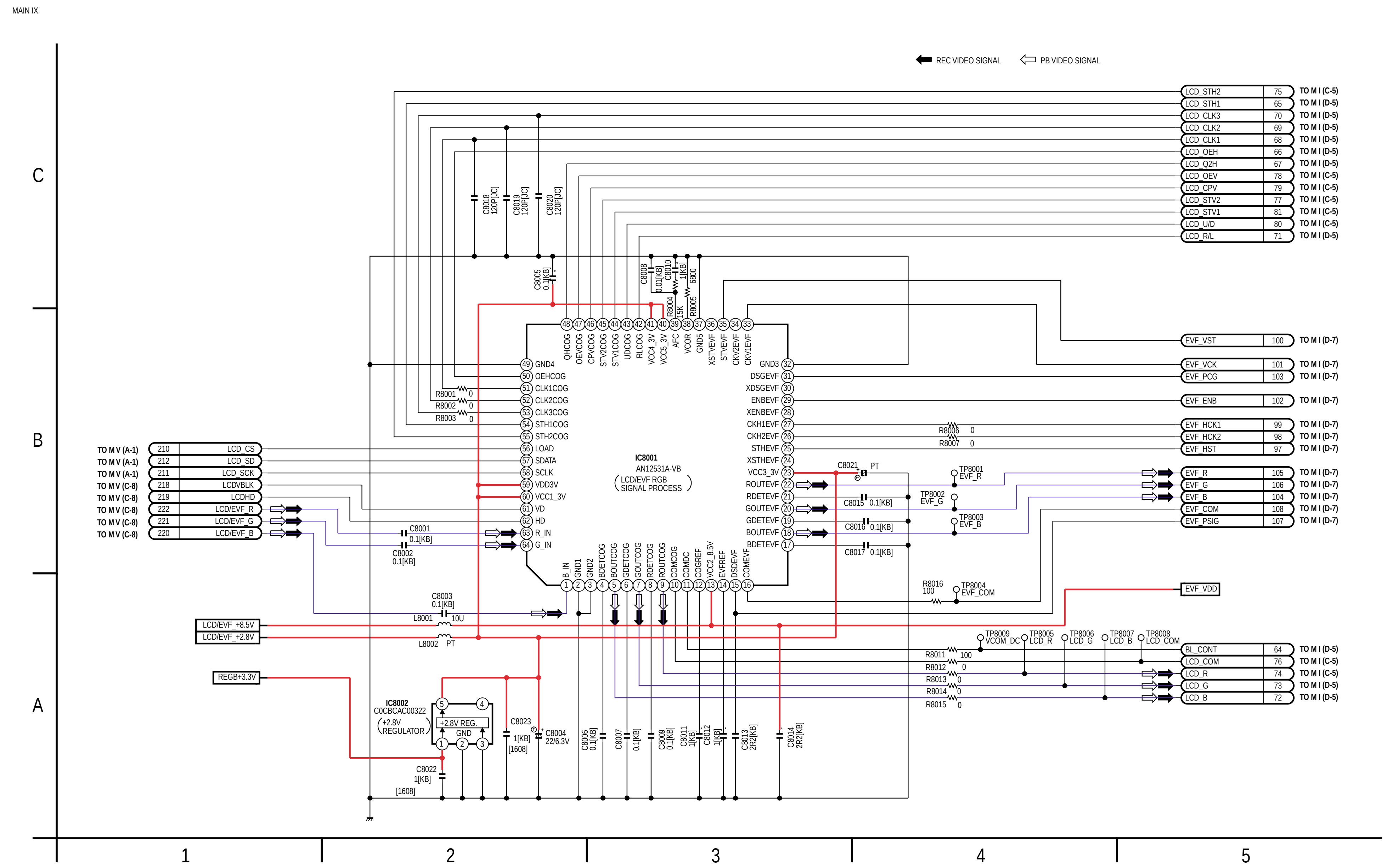
LINK TO VOLTAGE CHART

MAIN IX SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

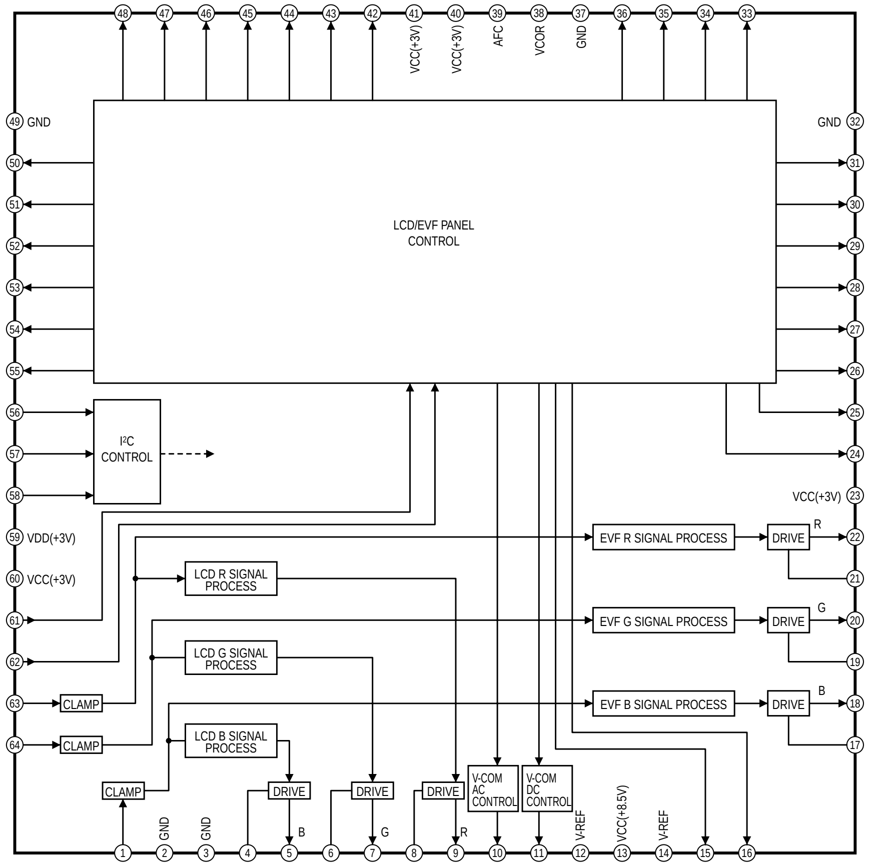
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



MAIN IX
REC VIDEO SIGNAL
PB VIDEO SIGNAL
C
B
A
1
2
3
4
5
IC8001
AN12531A-VB
(LCD/EVF RGB SIGNAL PROCESS)
IC8002
COCBCAC00322
(+2.8V REGULATOR)
+2.8V REG.
GND
LCD_STH2 75 TO M I (C-5)
LCD_STH1 65 TO M I (D-5)
LCD_CLK3 70 TO M I (D-5)
LCD_CLK2 69 TO M I (D-5)
LCD_CLK1 68 TO M I (D-5)
LCD_OEH 66 TO M I (D-5)
LCD_Q2H 67 TO M I (D-5)
LCD_OEV 78 TO M I (C-5)
LCD_CPV 79 TO M I (C-5)
LCD_STV2 77 TO M I (C-5)
LCD_STV1 81 TO M I (C-5)
LCD_U/D 80 TO M I (C-5)
LCD_R/L 71 TO M I (D-5)
EVF_VST 100 TO M I (D-7)
EVF_VCK 101 TO M I (D-7)
EVF_PCG 103 TO M I (D-7)
EVF_ENB 102 TO M I (D-7)
EVF_HCK1 99 TO M I (D-7)
EVF_HCK2 98 TO M I (D-7)
EVF_HST 97 TO M I (D-7)
EVF_R 105 TO M I (D-7)
EVF_G 106 TO M I (D-7)
EVF_B 104 TO M I (D-7)
EVF_COM 108 TO M I (D-7)
EVF_PSIG 107 TO M I (D-7)
EVF_VDD
BL_CONT 64 TO M I (D-5)
LCD_COM 76 TO M I (C-5)
LCD_R 74 TO M I (C-5)
LCD_G 73 TO M I (D-5)
LCD_B 72 TO M I (D-5)
TO M V (A-1) 210 LCD_CS
TO M V (A-1) 212 LCD_SD
TO M V (A-1) 211 LCD_SCK
TO M V (C-8) 218 LCDVBLK
TO M V (C-8) 219 LCDHD
TO M V (C-8) 222 LCD/EVF_R
TO M V (C-8) 221 LCD/EVF_G
TO M V (C-8) 220 LCD/EVF_B
LCD/EVF_+8.5V
LCD/EVF_+2.8V
REGB+3.3V
49 GND4
50 OEHCOG
51 CLK1COG
52 CLK2COG
53 CLK3COG
54 STH1COG
55 STH2COG
56 LOAD
57 SDATA
58 SCLK
59 VDD3V
60 VCC1_3V
61 VD
62 HD
63 R_IN
64 G_IN
48 QHCOG
47 OEVCOG
46 CPVCOG
45 STV2COG
44 STV1COG
43 UDCOG
42 RLCOG
41 VCC4_3V
40 VCC5_3V
39 AFC
38 VCOR
37 GND5
36 XSTVEVF
35 STVEVF
34 CKV2EVF
33 CKV1EVF
32 GND3
31 DSGEVF
30 XDSGEVF
29 ENBEVF
28 XENBEVF
27 CKH1EVF
26 CKH2EVF
25 STHEVF
24 XSTHEVF
23 VCC3_3V
22 ROUTEVF
21 RDETEVF
20 GOUTEVF
19 GDETEVF
18 BOUTEVF
17 BDETEVF
1 B_IN
2 GND1
3 GND2
4 BDETCOG
5 BOUTCOG
6 GDETCOG
7 GOUTCOG
8 RDETCOG
9 ROUTCOG
10 COMCOG
11 COMDC
12 COGREF
13 VCC2_8.5V
14 EVFREF
15 DSDEVF
16 COMEVF
C8018 120P[JC]
C8019 120P[JC]
C8020 120P[JC]
C8005 0.1[KB]
C8008 0.01[KB]
C8010 1[KB]
R8004 15K
R8005 6800
R8001 0
R8002 0
R8003 0
R8006 0
R8007 0
C8021 PT
C8015 0.1[KB]
C8016 0.1[KB]
C8017 0.1[KB]
TP8001 EVF_R
TP8002 EVF_G
TP8003 EVF_B
TP8004 EVF_COM
R8016 100
C8001 0.1[KB]
C8002 0.1[KB]
C8003 0.1[KB]
L8001 10U
L8002 PT
TP8009 VCOM_DC
TP8005 LCD_R
TP8006 LCD_G
TP8007 LCD_B
TP8008 LCD_COM
R8011 100
R8012 0
R8013 0
R8014 0
R8015 0
C8023 1[KB] [1608]
C8004 22/6.3V
C8022 1[KB] [1608]
C8006 0.1[KB]
C8007 0.1[KB]
C8009 0.1[KB]
C8011 1[KB]
C8012 1[KB]
C8013 2R2[KB]
C8014 2R2[KB]

IC8001 IC- DETAIL BLOCK DIAGRAM



48
47
46
45
44
43
42
41 VCC(+3V)
40 VCC(+3V)
39 AFC
38 VCOR
37 GND
36
35
34
33
49 GND
GND 32
LCD/EVF PANEL CONTROL
I²C CONTROL
VCC(+3V) 23
59 VDD(+3V)
60 VCC(+3V)
EVF R SIGNAL PROCESS
EVF G SIGNAL PROCESS
EVF B SIGNAL PROCESS
DRIVE
R
G
B
LCD R SIGNAL PROCESS
LCD G SIGNAL PROCESS
LCD B SIGNAL PROCESS
CLAMP
V-COM AC CONTROL
V-COM DC CONTROL
1
2 GND
3 GND
4
5
6
7
8
9
10
11
12 V-REF
13 VCC(+8.5V)
14 V-REF
15
16

LINK TO VOLTAGE CHART

LSJB8314

MAIN IX SCHEMATIC DIAGRAM

VDR-D100PL/VDR-D200PL

MAIN X SCHEMATIC DIAGRAM

2A 32V

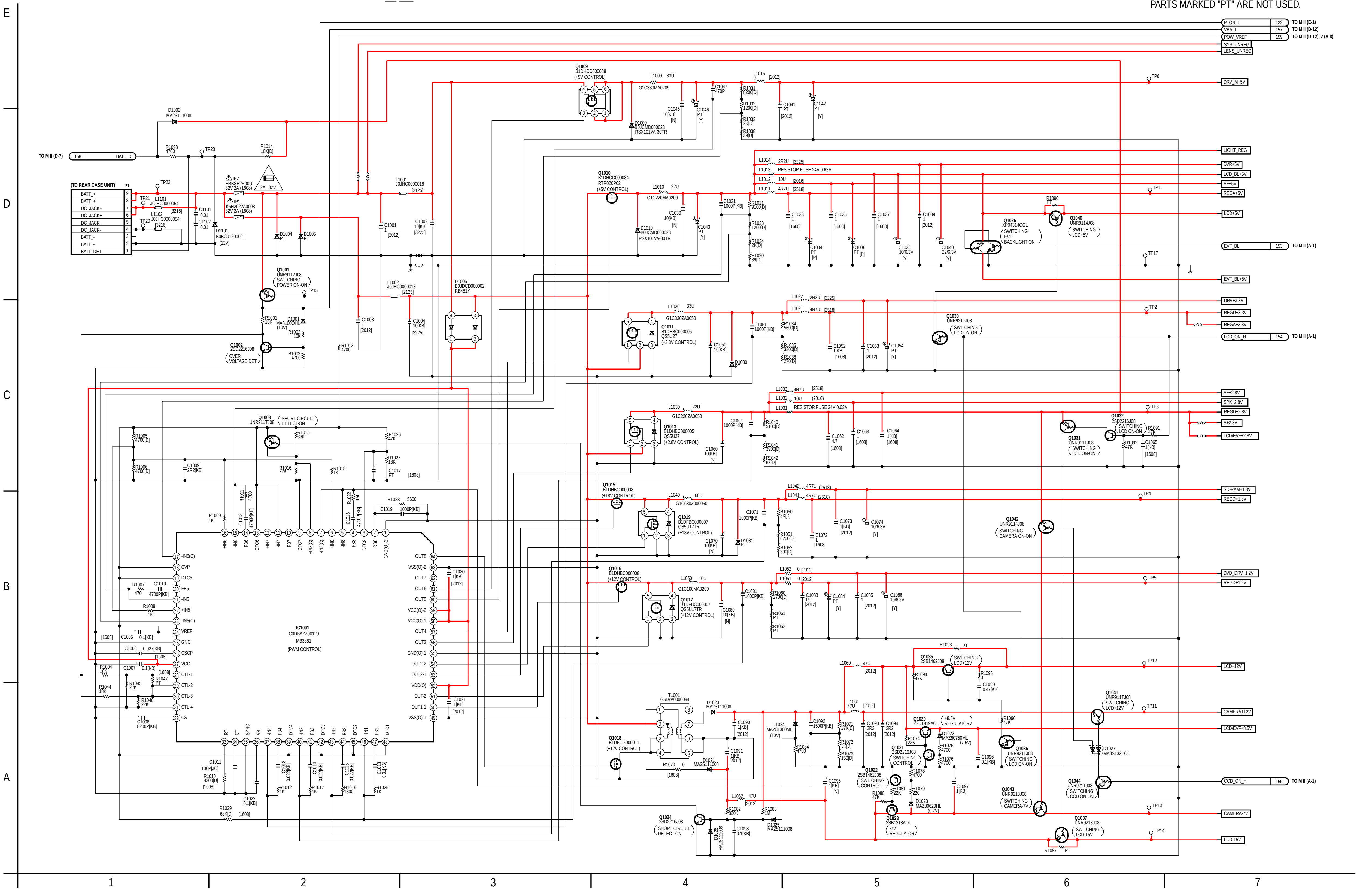
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

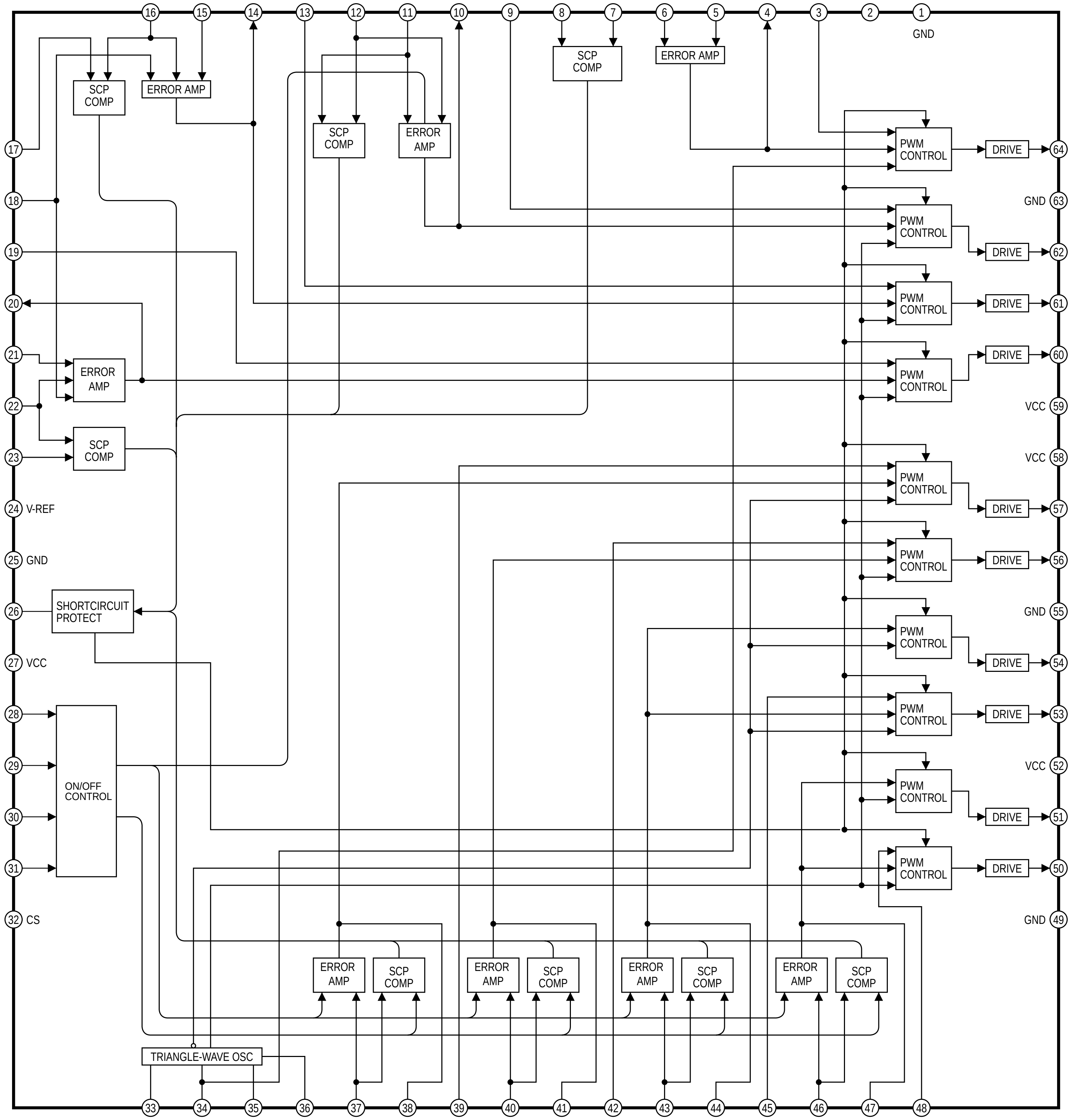
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


E
D
C
B
A
1
2
3
4
5
6
7
P_ON_L
VBATT
POW_VREF
SYS_UNREG
LENS_UNREG
TO M II (E-1)
TO M II (D-12)
TO M II (D-12), V (A-8)
DRV_M+5V
LIGHT_REG
DVR+5V
LCD_BL+5V
AF+5V
REGA+5V
LCD+5V
EVF_BL
TO M II (A-1)
EVF_BL+5V
DRV+3.3V
REGD+3.3V
REGA+3.3V
LCD_ON_H
AF+2.8V
SPK+2.8V
REGD+2.8V
A+2.8V
LCD/EVF+2.8V
SD-RAM+1.8V
REGD+1.8V
DVD_DRV+1.2V
REGD+1.2V
LCD+12V
CAMERA+12V
LCD/EVF+8.5V
CCD_ON_H
CAMERA-7V
LCD-15V
TO M II (D-7)
BATT_D
(TO REAR CASE UNIT)
P1
BATT_+
DC_JACK+
DC_JACK-
BATT_-
BATT_DET
IC1001
C0DBAZZ00129
MB3881
(PWM CONTROL)
Q1009
B1DHCC000038
(+5V CONTROL)
Q1010
B1DHCC000034
RTR020P02
(+5V CONTROL)
Q1011
B1DHBC000005
QS5U27
(+3.3V CONTROL)
Q1013
B1DHBC000005
QS5U27
(+2.8V CONTROL)
Q1015
B1DHBC000008
(+18V CONTROL)
Q1019
B1DFBC000007
QS5U17TR
(+18V CONTROL)
Q1016
B1DHBC000008
(+12V CONTROL)
Q1017
B1DFBC000007
QS5U17TR
(+12V CONTROL)
Q1018
B1DFCG000011
(+12V CONTROL)
T1001
G5DYA0000094
Q1001
UNR9112J08
(SWITCHING POWER ON-ON)
Q1002
2SD2216J08
(OVER VOLTAGE DET)
Q1003
UNR911TJ08
(SHORT-CIRCUIT DETECT-ON)
Q1024
2SD2216J08
(SHORT CIRCUIT DETECT-ON)
Q1026
XP04314OOL
(SWITCHING EVF BACKLIGHT ON)
Q1040
UNR9114J08
(SWITCHING LCD+5V)
Q1030
UNR921TJ08
(SWITCHING LCD ON-ON)
Q1031
UNR911TJ08
(SWITCHING LCD ON-ON)
Q1032
2SD2216J08
(SWITCHING LCD ON-ON)
Q1042
UNR9114J08
(SWITCHING CAMERA ON-ON)
Q1035
2SB1462J08
(SWITCHING LCD+12V)
Q1041
UNR911TJ08
(SWITCHING LCD+12V)
Q1020
2SD1819AOL
(+8.5V REGULATOR)
Q1021
2SD2216J08
(SWITCHING CONTROL)
Q1022
2SB1462J08
(SWITCHING CONTROL)
Q1023
2SB1218AOL
(-7V REGULATOR)
Q1036
UNR921TJ08
(SWITCHING LCD ON-ON)
Q1043
UNR9213J08
(SWITCHING CAMERA-7V)
Q1044
UNR921TJ08
(SWITCHING CCD ON-ON)
Q1037
UNR9213J08
(SWITCHING LCD-15V)
IP1
K5H2022A0008
32V 2A (1608)
IP2
ERBSE2R00U
32V 2A (1608)
2A 32V
RESISTOR FUSE 24V 0.63A
TP1
TP2
TP3
TP4
TP5
TP6
TP11
TP12
TP13
TP14
TP15
TP17
TP20
TP21
TP22
TP23

LINK TO VOLTAGE CHART
LSJB8314
MAIN X SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

IC1001 IC- DETAIL BLOCK DIAGRAM

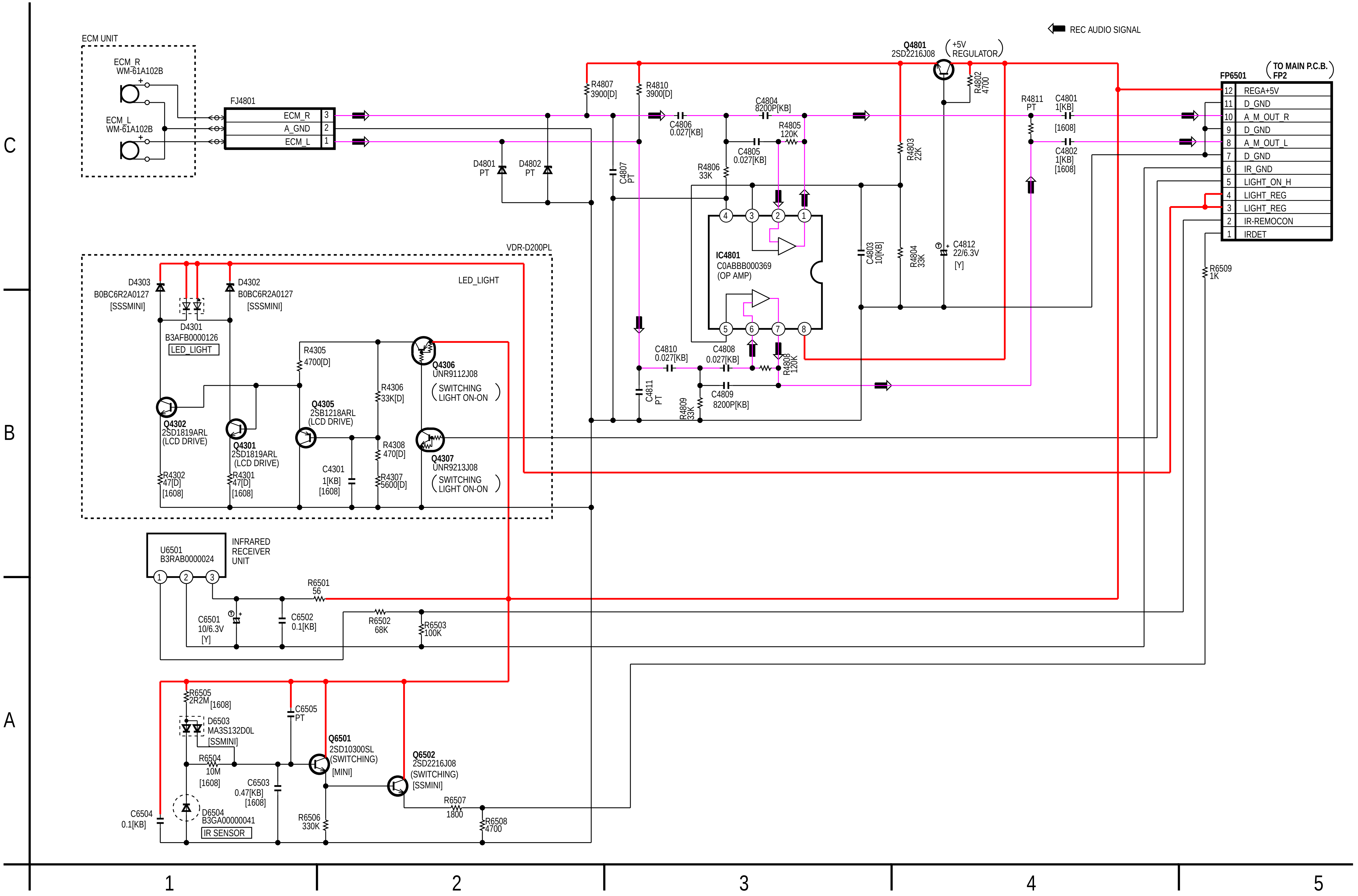

16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
GND
SCP COMP
ERROR AMP
SCP COMP
ERROR AMP
SCP COMP
ERROR AMP
PWM CONTROL
DRIVE
17
18
19
20
21
22
23
24 V-REF
25 GND
26
27 VCC
28
29
30
31
32 CS
ERROR AMP
SCP COMP
SHORTCIRCUIT PROTECT
ON/OFF CONTROL
TRIANGLE-WAVE OSC
ERROR AMP
SCP COMP
64
GND 63
62
61
60
VCC 59
VCC 58
57
56
GND 55
54
53
VCC 52
51
50
GND 49
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48

FRONT SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC AUDIO SIGNAL
ECM UNIT
ECM_R
WM-61A102B
ECM_L
WM-61A102B
FJ4801
ECM_R 3
A_GND 2
ECM_L 1
D4801 PT
D4802 PT
R4807 3900[D]
R4810 3900[D]
C4807 PT
C4806 0.027[KB]
C4804 8200P[KB]
R4805 120K
C4805 0.027[KB]
R4806 33K
Q4801 2SD2216J08
(+5V REGULATOR)
R4802 4700
R4803 22K
R4811 PT
C4801 1[KB] [1608]
C4802 1[KB] [1608]
IC4801
C0ABBB000369
(OP AMP)
C4803 10[KB]
R4804 33K
C4812 22/6.3V [Y]
C4810 0.027[KB]
C4808 0.027[KB]
R4808 120K
C4811 PT
R4809 33K
C4809 8200P[KB]
TO MAIN P.C.B. FP2
FP6501
12 REGA+5V
11 D_GND
10 A_M_OUT_R
9 D_GND
8 A_M_OUT_L
7 D_GND
6 IR_GND
5 LIGHT_ON_H
4 LIGHT_REG
3 LIGHT_REG
2 IR-REMOCON
1 IRDET
R6509 1K
VDR-D200PL
LED_LIGHT
D4303 B0BC6R2A0127 [SSSMINI]
D4302 B0BC6R2A0127 [SSSMINI]
D4301 B3AFB0000126
LED_LIGHT
R4305 4700[D]
Q4306 UNR9112J08
(SWITCHING LIGHT ON-ON)
R4306 33K[D]
Q4305 2SB1218ARL (LCD DRIVE)
Q4302 2SD1819ARL (LCD DRIVE)
Q4301 2SD1819ARL (LCD DRIVE)
R4308 470[D]
Q4307 UNR9213J08
(SWITCHING LIGHT ON-ON)
C4301 1[KB] [1608]
R4307 5600[D]
R4302 47[D] [1608]
R4301 47[D] [1608]
U6501 B3RAB0000024
INFRARED RECEIVER UNIT
R6501 56
C6501 10/6.3V [Y]
C6502 0.1[KB]
R6502 68K
R6503 100K
R6505 2R2M [1608]
C6505 PT
D6503 MA3S132D0L [SSMINI]
Q6501 2SD10300SL (SWITCHING) [MINI]
Q6502 2SD2216J08 (SWITCHING) [SSMINI]
R6504 10M [1608]
C6503 0.47[KB] [1608]
C6504 0.1[KB]
D6504 B3GA00000041
IR SENSOR
R6506 330K
R6507 1800
R6508 4700
C
B
A
1
2
3
4
5

LINK TO VOLTAGE CHART

LSJB8316

FRONT SCHEMATIC DIAGRAM

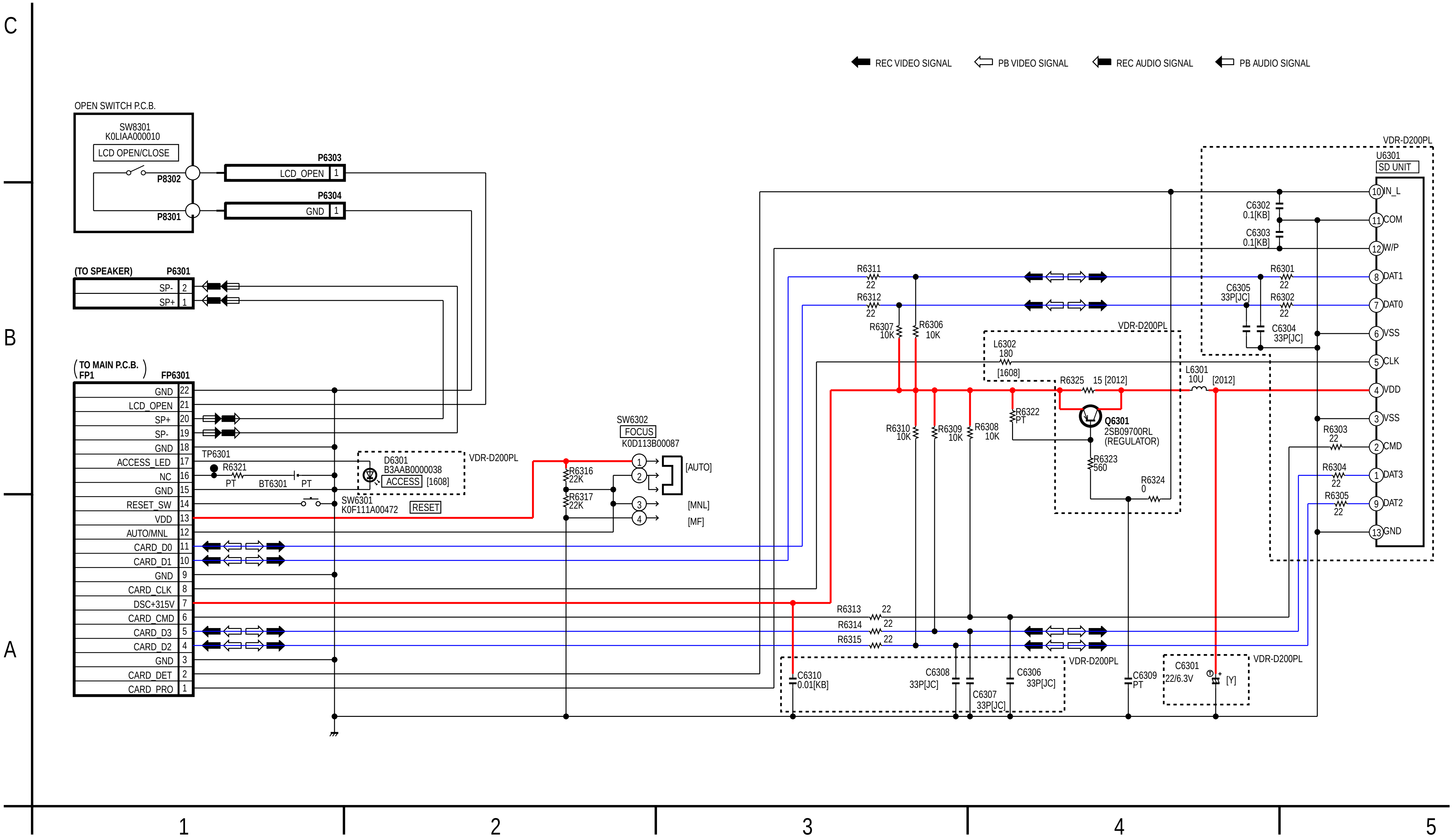
VDR-D100PL/VDR-D200PL

SIDE R SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
C
B
A
1
2
3
4
5
OPEN SWITCH P.C.B.
SW8301
K0LIAA000010
LCD OPEN/CLOSE
P8302
P8301
P6303
LCD_OPEN 1
P6304
GND 1
(TO SPEAKER)
P6301
SP- 2
SP+ 1
TO MAIN P.C.B.
FP1
FP6301
GND 22
LCD_OPEN 21
SP+ 20
SP- 19
GND 18
ACCESS_LED 17
NC 16
GND 15
RESET_SW 14
VDD 13
AUTO/MNL 12
CARD_D0 11
CARD_D1 10
GND 9
CARD_CLK 8
DSC+315V 7
CARD_CMD 6
CARD_D3 5
CARD_D2 4
GND 3
CARD_DET 2
CARD_PRO 1
TP6301
R6321
PT
BT6301
PT
D6301
B3AAB0000038
ACCESS
[1608]
VDR-D200PL
SW6301
K0F111A00472
RESET
SW6302
FOCUS
K0D113B00087
R6316
22K
R6317
22K
[AUTO]
[MNL]
[MF]
R6311
22
R6312
22
R6307
10K
R6306
10K
R6310
10K
R6309
10K
R6308
10K
L6302
180
[1608]
VDR-D200PL
R6325
15 [2012]
R6322
PT
Q6301
2SB09700RL
(REGULATOR)
R6323
560
R6324
0
L6301
10U
[2012]
R6313
22
R6314
22
R6315
22
C6310
0.01[KB]
C6308
33P[JC]
C6307
33P[JC]
C6306
33P[JC]
VDR-D200PL
C6309
PT
C6301
22/6.3V
[Y]
VDR-D200PL
VDR-D200PL
U6301
SD UNIT
C6302
0.1[KB]
C6303
0.1[KB]
C6305
33P[JC]
C6304
33P[JC]
R6301
22
R6302
22
R6303
22
R6304
22
R6305
22
10 IN_L
11 COM
12 W/P
8 DAT1
7 DAT0
6 VSS
5 CLK
4 VDD
3 VSS
2 CMD
1 DAT3
9 DAT2
13 GND

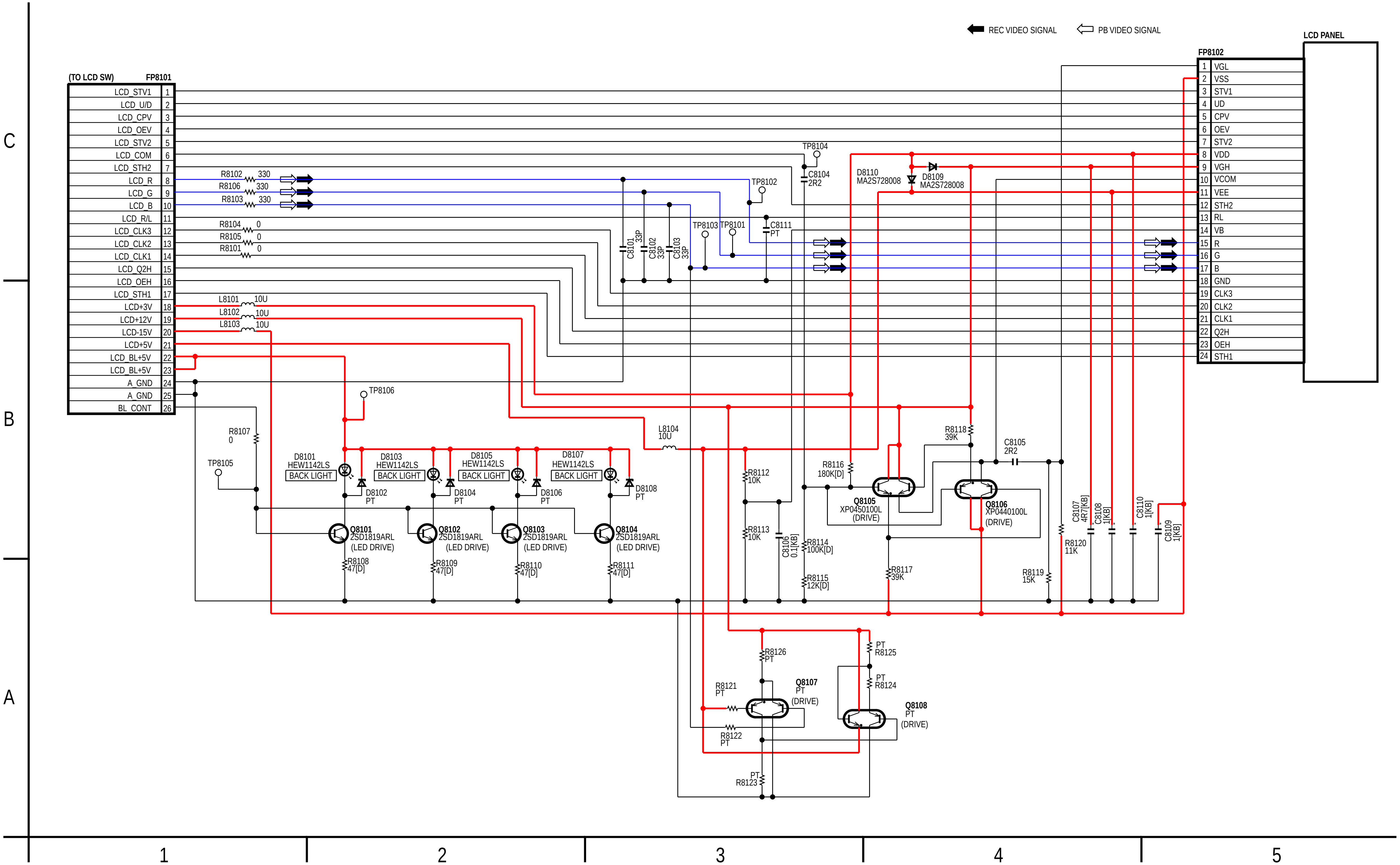
LCD BACKLIGHT SCHEMATIC DIAGRAM

NOTE:
ALL INDIVIDUAL PARTS EXCEPT D8101, D8103, D8105, AND D8107 ON LCD BACKLIGHT P.C.B. ARE SUPPLIED AS REPLACEMENT PARTS. WHEN SERVICING THESE PARTS, REPLACE LCD BACKLIGHT P.C.B. INSTEAD OF INDIVIDUAL PARTS.

NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
(TO LCD SW)
FP8101
LCD_STV1 1
LCD_U/D 2
LCD_CPV 3
LCD_OEV 4
LCD_STV2 5
LCD_COM 6
LCD_STH2 7
LCD_R 8
LCD_G 9
LCD_B 10
LCD_R/L 11
LCD_CLK3 12
LCD_CLK2 13
LCD_CLK1 14
LCD_Q2H 15
LCD_OEH 16
LCD_STH1 17
LCD+3V 18
LCD+12V 19
LCD-15V 20
LCD+5V 21
LCD_BL+5V 22
LCD_BL+5V 23
A_GND 24
A_GND 25
BL_CONT 26
LCD PANEL
FP8102
1 VGL
2 VSS
3 STV1
4 UD
5 CPV
6 OEV
7 STV2
8 VDD
9 VGH
10 VCOM
11 VEE
12 STH2
13 RL
14 VB
15 R
16 G
17 B
18 GND
19 CLK3
20 CLK2
21 CLK1
22 Q2H
23 OEH
24 STH1
R8102 330
R8106 330
R8103 330
R8104 0
R8105 0
R8101 0
L8101 10U
L8102 10U
L8103 10U
C8101 33P
C8102 33P
C8103 33P
TP8104
C8104 2R2
TP8102
TP8103
TP8101
C8111 PT
D8110 MA2S728008
D8109 MA2S728008
TP8106
TP8105
R8107 0
D8101 HEW1142LS BACK LIGHT
D8103 HEW1142LS BACK LIGHT
D8105 HEW1142LS BACK LIGHT
D8107 HEW1142LS BACK LIGHT
D8102 PT
D8104 PT
D8106 PT
D8108 PT
Q8101 2SD1819ARL (LED DRIVE)
Q8102 2SD1819ARL (LED DRIVE)
Q8103 2SD1819ARL (LED DRIVE)
Q8104 2SD1819ARL (LED DRIVE)
R8108 47[D]
R8109 47[D]
R8110 47[D]
R8111 47[D]
L8104 10U
R8112 10K
R8113 10K
C8106 0.1[KB]
R8114 100K[D]
R8115 12K[D]
R8116 180K[D]
Q8105 XP0450100L (DRIVE)
R8117 39K
R8118 39K
Q8106 XP0440100L (DRIVE)
C8105 2R2
R8119 15K
R8120 11K
C8107 4R7[KB]
C8108 1[KB]
C8110 1[KB]
C8109 1[KB]
R8126 PT
R8125 PT
R8124 PT
R8121 PT
R8122 PT
R8123 PT
Q8107 PT (DRIVE)
Q8108 PT (DRIVE)
C
B
A
1
2
3
4
5

LINK TO VOLTAGE CHART

LSJB8318

LCD BACKLIGHT SCHEMATIC DIAGRAM

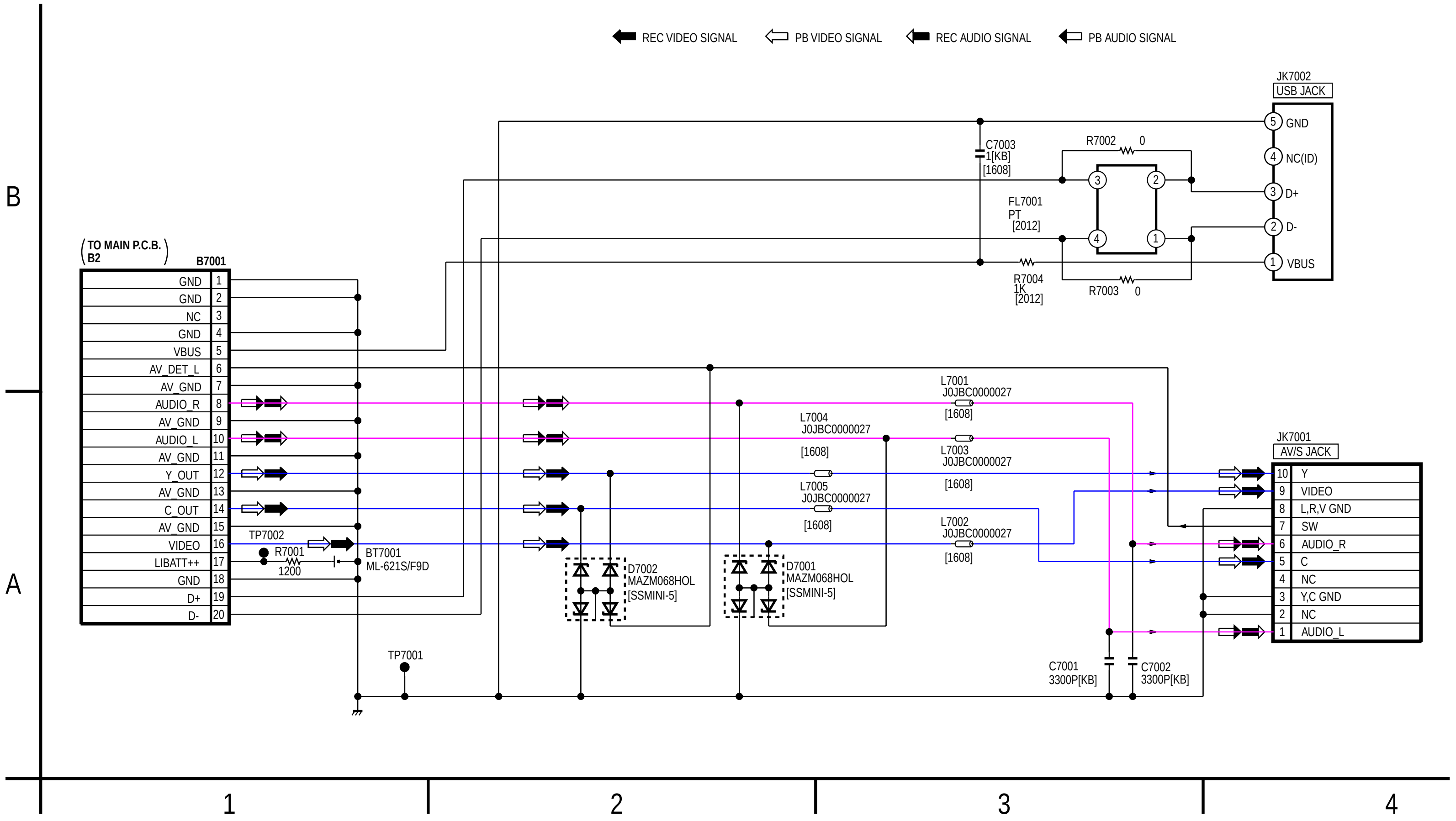
VDR-D100PL/VDR-D200PL

NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

JACK SCHEMATIC DIAGRAM

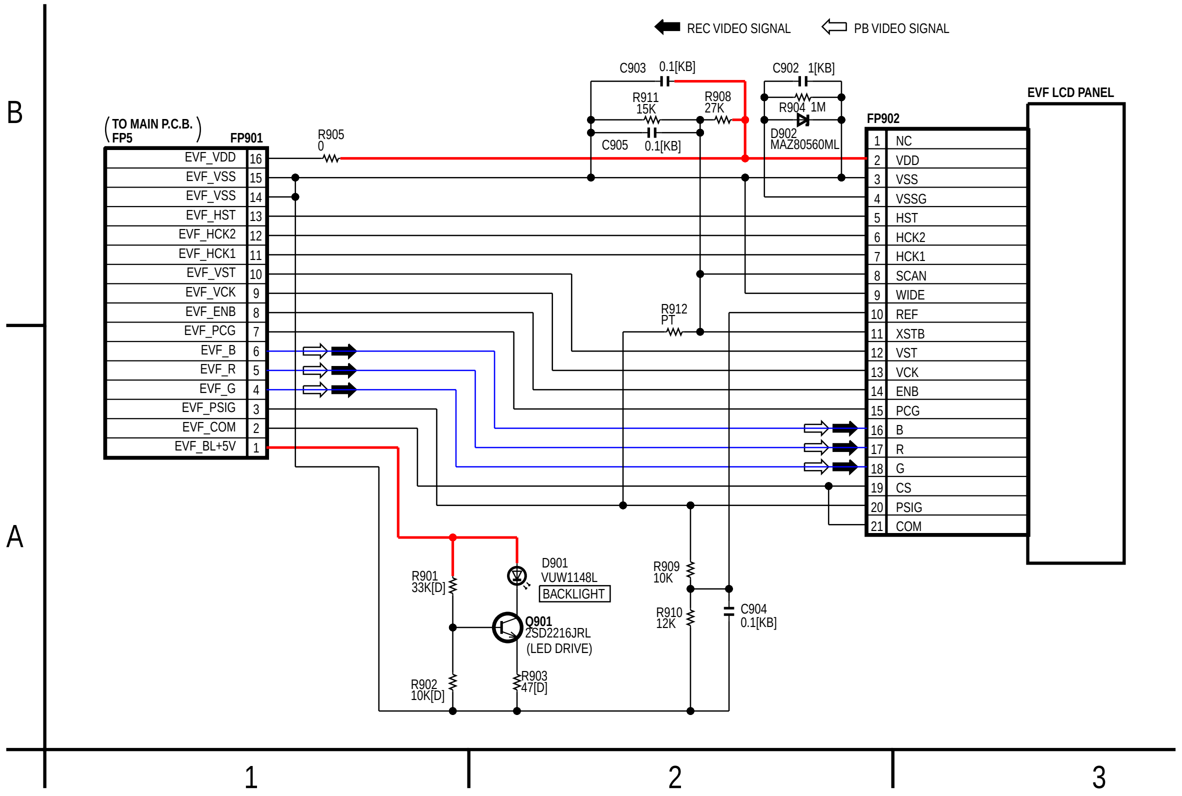

REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
JK7002
USB JACK
GND
NC(ID)
D+
D-
VBUS
C7003
1[KB]
[1608]
R7002 0
FL7001
PT
[2012]
R7004
1K
[2012]
R7003 0
TO MAIN P.C.B.
B2
B7001
GND 1
GND 2
NC 3
GND 4
VBUS 5
AV_DET_L 6
AV_GND 7
AUDIO_R 8
AV_GND 9
AUDIO_L 10
AV_GND 11
Y_OUT 12
AV_GND 13
C_OUT 14
AV_GND 15
VIDEO 16
LIBATT++ 17
GND 18
D+ 19
D- 20
TP7002
R7001
1200
BT7001
ML-621S/F9D
TP7001
L7001
J0JBC0000027
[1608]
L7004
J0JBC0000027
[1608]
L7003
J0JBC0000027
[1608]
L7005
J0JBC0000027
[1608]
L7002
J0JBC0000027
[1608]
D7002
MAZM068HOL
[SSMINI-5]
D7001
MAZM068HOL
[SSMINI-5]
C7001
3300P[KB]
C7002
3300P[KB]
JK7001
AV/S JACK
10 Y
9 VIDEO
8 L,R,V GND
7 SW
6 AUDIO_R
5 C
4 NC
3 Y,C GND
2 NC
1 AUDIO_L
B
A
1
2
3
4

LSJB8317

EVF BACKLIGHT SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

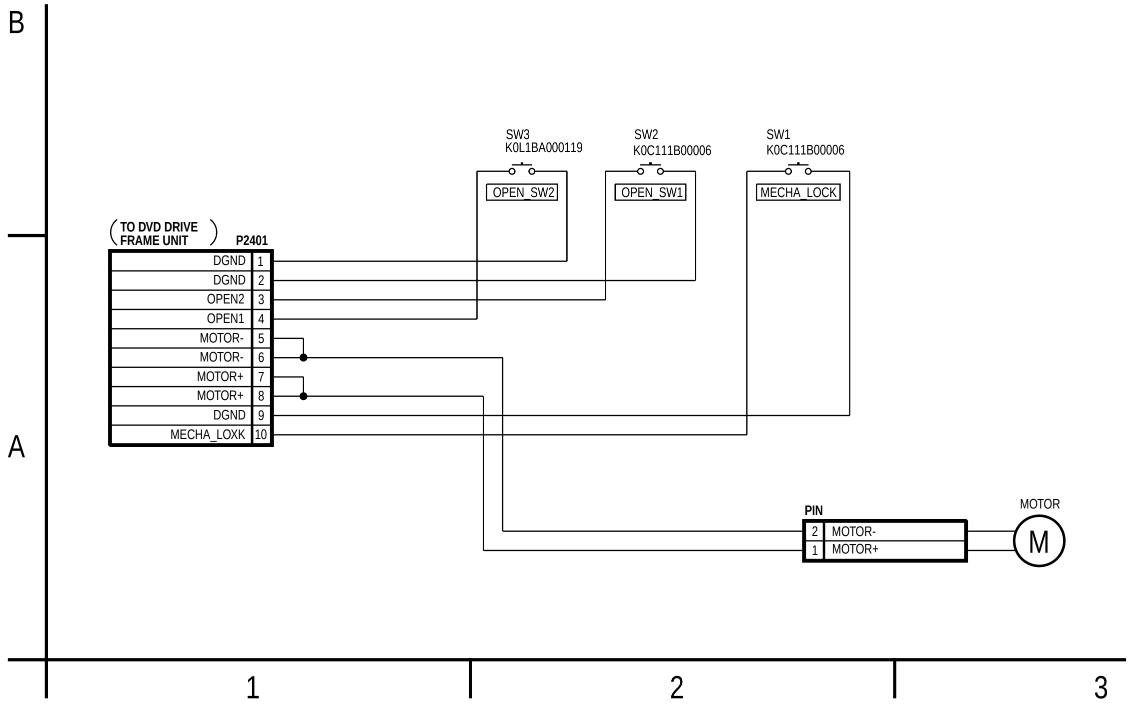
NOTE:
EVF BACKLIGHT IS NOT SERVICEABLE AND IS SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN P.C.B.
FP5
FP901
EVF_VDD 16
EVF_VSS 15
EVF_VSS 14
EVF_HST 13
EVF_HCK2 12
EVF_HCK1 11
EVF_VST 10
EVF_VCK 9
EVF_ENB 8
EVF_PCG 7
EVF_B 6
EVF_R 5
EVF_G 4
EVF_PSIG 3
EVF_COM 2
EVF_BL+5V 1
R905
0
C903 0.1[KB]
R911
15K
R908
27K
C905 0.1[KB]
C902 1[KB]
R904 1M
D902
MAZ80560ML
FP902
EVF LCD PANEL
1 NC
2 VDD
3 VSS
4 VSSG
5 HST
6 HCK2
7 HCK1
8 SCAN
9 WIDE
10 REF
11 XSTB
12 VST
13 VCK
14 ENB
15 PCG
16 B
17 R
18 G
19 CS
20 PSIG
21 COM
R912
PT
D901
VUW1148L
BACKLIGHT
R901
33K[D]
Q901
ZSD2216JRL
(LED DRIVE)
R902
10K[D]
R903
47[D]
R909
10K
R910
12K
C904
0.1[KB]
B
A
1
2
3

DISK COVER LOCK SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
DISK COVER LOCK UNIT IS NOT SERVICEABLE AND IS SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


SW3
K0L1BA000119
OPEN_SW2
SW2
K0C111B00006
OPEN_SW1
SW1
K0C111B00006
MECHA_LOCK
TO DVD DRIVE
FRAME UNIT
P2401
DGND 1
DGND 2
OPEN2 3
OPEN1 4
MOTOR- 5
MOTOR- 6
MOTOR+ 7
MOTOR+ 8
DGND 9
MECHA_LOXK 10
PIN
2 MOTOR-
1 MOTOR+
MOTOR
M
B
A
1
2
3

LINK TO VOLTAGE CHART

JACK SCHEMATIC DIAGRAM
EVF BACKLIGHT SCHEMATIC DIAGRAM
DISK COVER LOCK SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

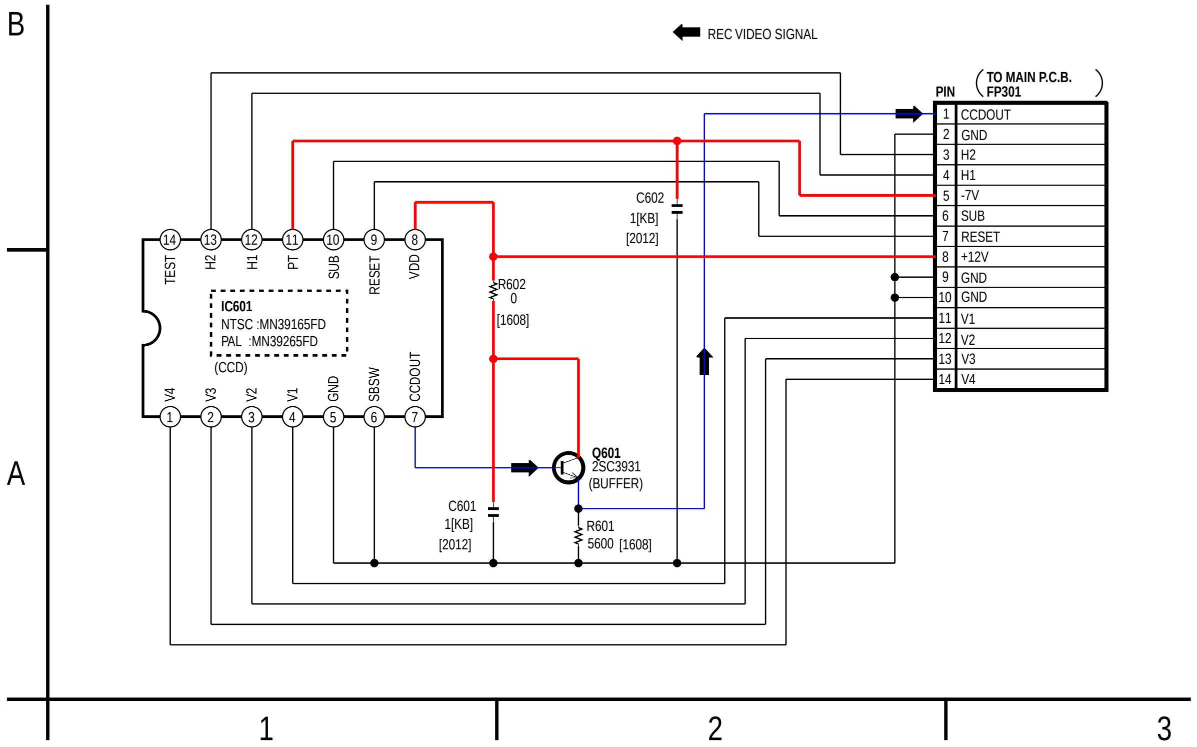
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

CCD SCHEMATIC DIAGRAM

"FOR REFERENCE ONLY"

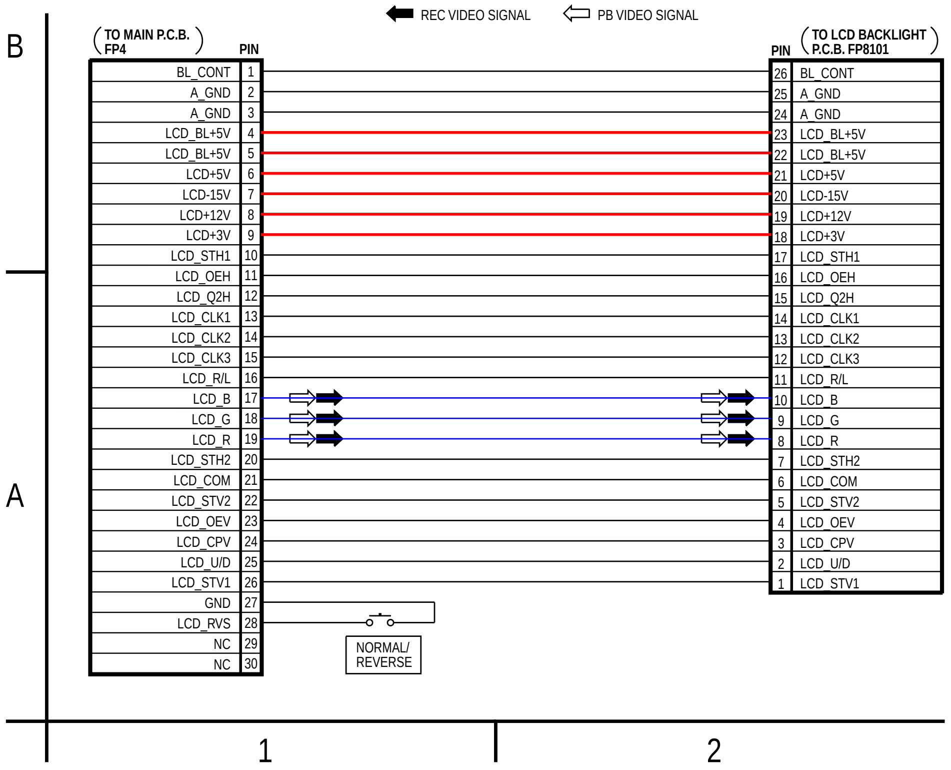
NOTE:
CCD P.C.B. IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


B
A
1
2
3
REC VIDEO SIGNAL
TO MAIN P.C.B. FP301
PIN
1 CCDOUT
2 GND
3 H2
4 H1
5 -7V
6 SUB
7 RESET
8 +12V
9 GND
10 GND
11 V1
12 V2
13 V3
14 V4
IC601
NTSC :MN39165FD
PAL :MN39265FD
(CCD)
14 TEST
13 H2
12 H1
11 PT
10 SUB
9 RESET
8 VDD
1 V4
2 V3
3 V2
4 V1
5 GND
6 SBSW
7 CCDOUT
C602
1[KB]
[2012]
R602
0
[1608]
Q601
2SC3931
(BUFFER)
C601
1[KB]
[2012]
R601
5600 [1608]

LCD SW SCHEMATIC DIAGRAM

"FOR REFERENCE ONLY"

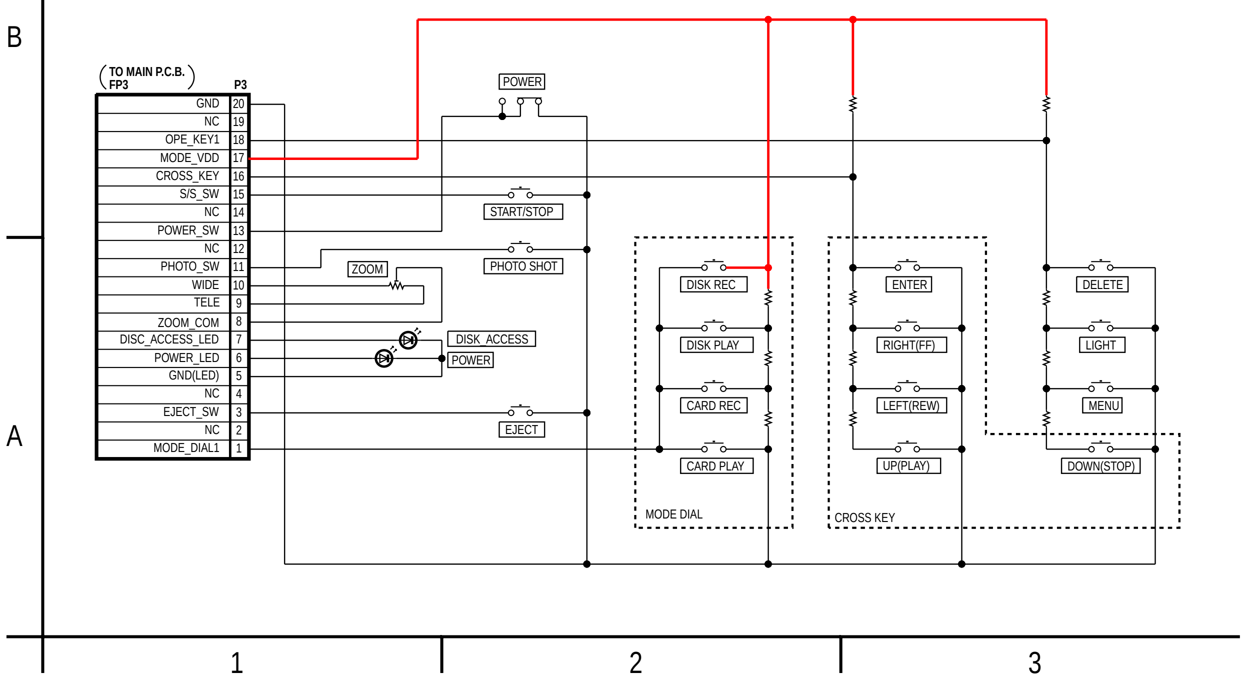
NOTE:
LCD SW IS NOT SERVICEABLE AND IS SUPPLIED AS
A LCD SHAFT CASE UNIT ONLY FOR REPLACEMENT.


B
A
1
2
REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN P.C.B. FP4
PIN
BL_CONT 1
A_GND 2
A_GND 3
LCD_BL+5V 4
LCD_BL+5V 5
LCD+5V 6
LCD-15V 7
LCD+12V 8
LCD+3V 9
LCD_STH1 10
LCD_OEH 11
LCD_Q2H 12
LCD_CLK1 13
LCD_CLK2 14
LCD_CLK3 15
LCD_R/L 16
LCD_B 17
LCD_G 18
LCD_R 19
LCD_STH2 20
LCD_COM 21
LCD_STV2 22
LCD_OEV 23
LCD_CPV 24
LCD_U/D 25
LCD_STV1 26
GND 27
LCD_RVS 28
NC 29
NC 30
TO LCD BACKLIGHT P.C.B. FP8101
PIN
26 BL_CONT
25 A_GND
24 A_GND
23 LCD_BL+5V
22 LCD_BL+5V
21 LCD+5V
20 LCD-15V
19 LCD+12V
18 LCD+3V
17 LCD_STH1
16 LCD_OEH
15 LCD_Q2H
14 LCD_CLK1
13 LCD_CLK2
12 LCD_CLK3
11 LCD_R/L
10 LCD_B
9 LCD_G
8 LCD_R
7 LCD_STH2
6 LCD_COM
5 LCD_STV2
4 LCD_OEV
3 LCD_CPV
2 LCD_U/D
1 LCD_STV1
NORMAL/
REVERSE

SIDE L / DISK SCHEMATIC DIAGRAM

"FOR REFERENCE ONLY"

NOTE:
SIDE L/DISK UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


B
A
1
2
3
TO MAIN P.C.B. FP3
P3
GND 20
NC 19
OPE_KEY1 18
MODE_VDD 17
CROSS_KEY 16
S/S_SW 15
NC 14
POWER_SW 13
NC 12
PHOTO_SW 11
WIDE 10
TELE 9
ZOOM_COM 8
DISC_ACCESS_LED 7
POWER_LED 6
GND(LED) 5
NC 4
EJECT_SW 3
NC 2
MODE_DIAL1 1
POWER
START/STOP
ZOOM
PHOTO SHOT
DISK_ACCESS
POWER
EJECT
DISK REC
DISK PLAY
CARD REC
CARD PLAY
MODE DIAL
ENTER
RIGHT(FF)
LEFT(REW)
UP(PLAY)
CROSS KEY
DELETE
LIGHT
MENU
DOWN(STOP)

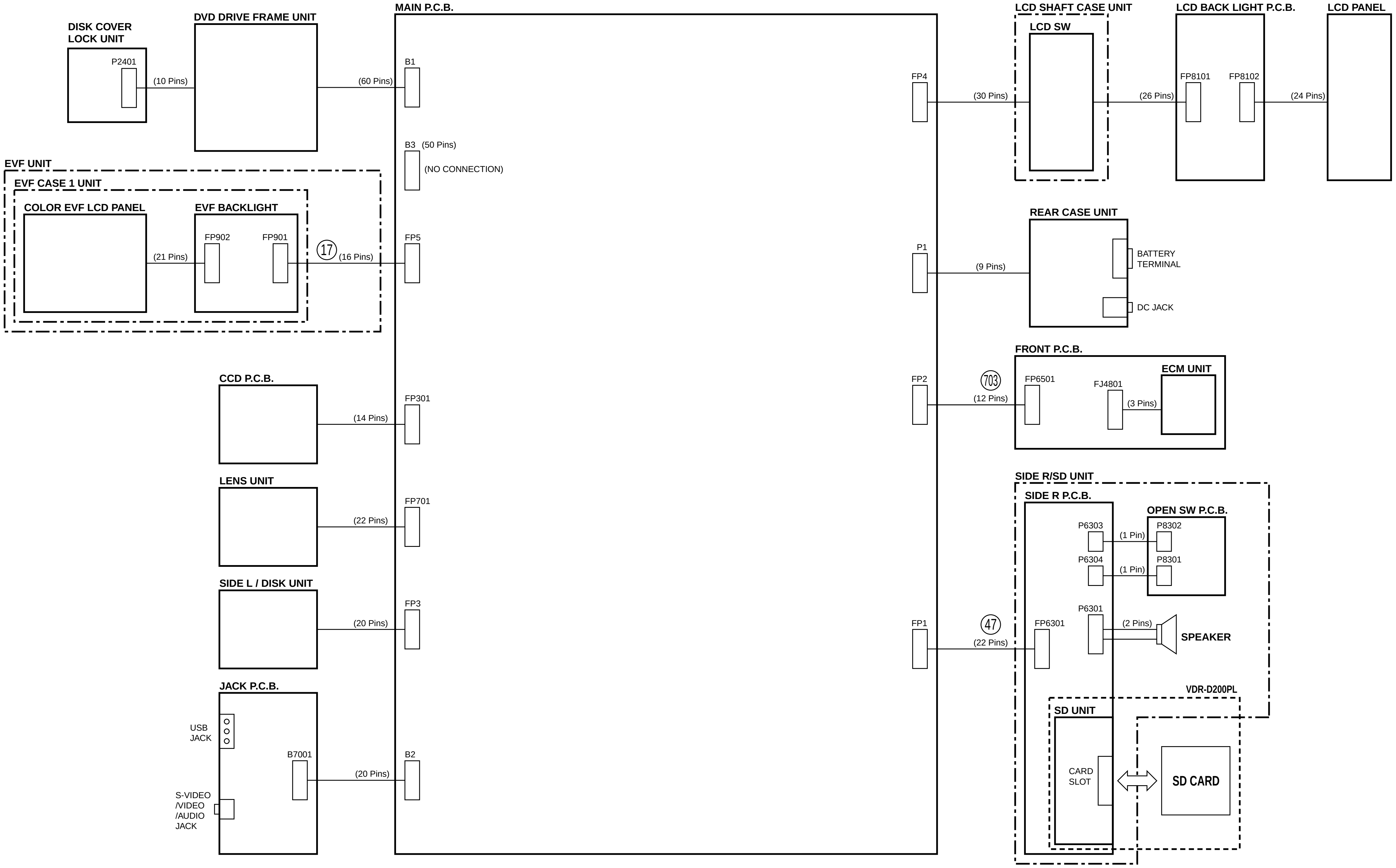
CCD SCHEMATIC DIAGRAM
LCD SW SCHEMATIC DIAGRAM
SIDE L / DISK SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

INTERCONNECTION SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

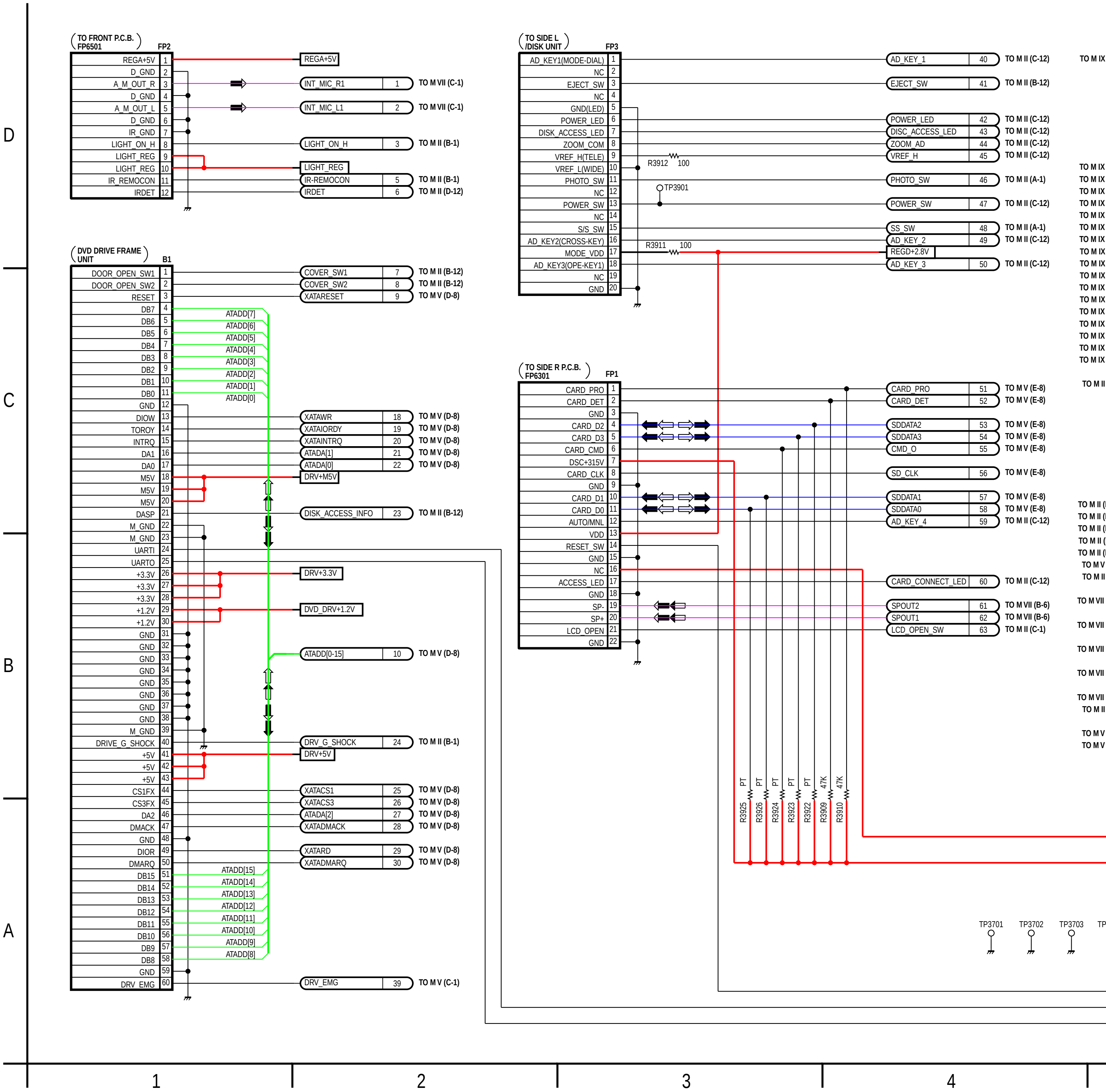
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


DISK COVER LOCK UNIT
P2401
(10 Pins)
DVD DRIVE FRAME UNIT
(60 Pins)
MAIN P.C.B.
B1
B3 (50 Pins)
(NO CONNECTION)
EVF UNIT
EVF CASE 1 UNIT
COLOR EVF LCD PANEL
EVF BACKLIGHT
FP902
FP901
(21 Pins)
⑰
(16 Pins)
FP5
CCD P.C.B.
FP301
(14 Pins)
LENS UNIT
FP701
(22 Pins)
SIDE L / DISK UNIT
FP3
(20 Pins)
JACK P.C.B.
USB JACK
S-VIDEO /VIDEO /AUDIO JACK
B7001
(20 Pins)
B2
FP4
(30 Pins)
LCD SHAFT CASE UNIT
LCD SW
(26 Pins)
LCD BACK LIGHT P.C.B.
FP8101
FP8102
(24 Pins)
LCD PANEL
P1
(9 Pins)
REAR CASE UNIT
BATTERY TERMINAL
DC JACK
FRONT P.C.B.
FP2
(703)
(12 Pins)
FP6501
FJ4801
(3 Pins)
ECM UNIT
SIDE R/SD UNIT
SIDE R P.C.B.
OPEN SW P.C.B.
P6303
(1 Pin)
P8302
P6304
(1 Pin)
P8301
P6301
(2 Pins)
SPEAKER
FP1
㊼
(22 Pins)
FP6301
VDR-D200PL
SD UNIT
CARD SLOT
SD CARD

12.2. MAIN SCHEMATIC DIAGRAMS

MAIN I SCHEMATIC DIAGRAM

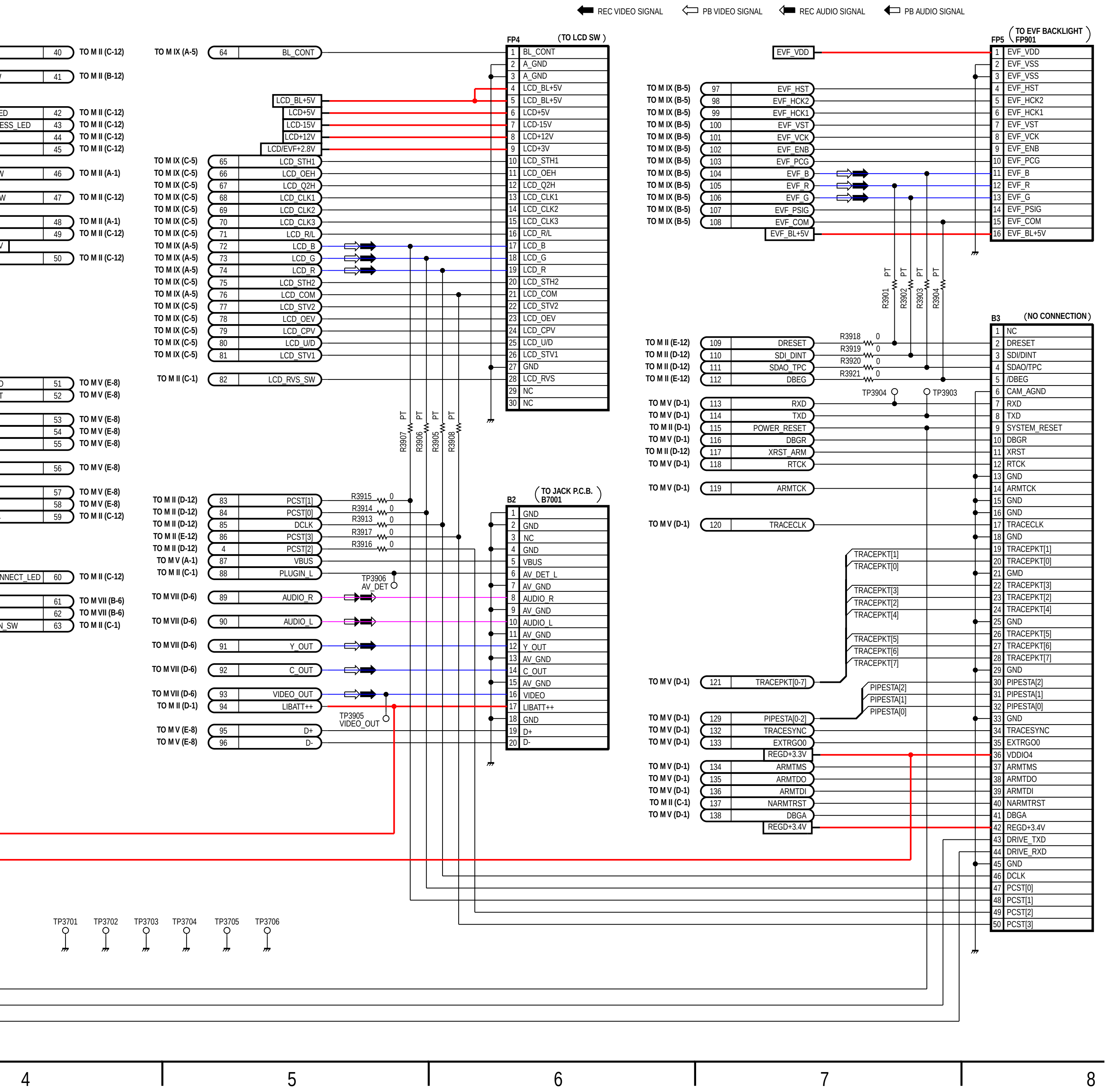
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


TO FRONT P.C.B. FP6501
FP2
REGA+5V 1
D_GND 2
A_M_OUT_R 3
D_GND 4
A_M_OUT_L 5
D_GND 6
IR_GND 7
LIGHT_ON_H 8
LIGHT_REG 9
LIGHT_REG 10
IR_REMOCON 11
IRDET 12
REGA+5V
INT_MIC_R1 1 TO M VII (C-1)
INT_MIC_L1 2 TO M VII (C-1)
LIGHT_ON_H 3 TO M II (B-1)
LIGHT_REG
IR-REMOCON 5 TO M II (B-1)
IRDET 6 TO M II (D-12)
DVD DRIVE FRAME UNIT
B1
DOOR_OPEN_SW1 1
DOOR_OPEN_SW2 2
RESET 3
DB7 4
DB6 5
DB5 6
DB4 7
DB3 8
DB2 9
DB1 10
DB0 11
GND 12
DIOW 13
TOROY 14
INTRQ 15
DA1 16
DA0 17
M5V 18
M5V 19
M5V 20
DASP 21
M_GND 22
M_GND 23
UARTI 24
UARTO 25
+3.3V 26
+3.3V 27
+3.3V 28
+1.2V 29
+1.2V 30
GND 31
GND 32
GND 33
GND 34
GND 35
GND 36
GND 37
GND 38
M_GND 39
DRIVE_G_SHOCK 40
+5V 41
+5V 42
+5V 43
CS1FX 44
CS3FX 45
DA2 46
DMACK 47
GND 48
DIOR 49
DMARQ 50
DB15 51
DB14 52
DB13 53
DB12 54
DB11 55
DB10 56
DB9 57
DB8 58
GND 59
DRV_EMG 60
COVER_SW1 7 TO M II (B-12)
COVER_SW2 8 TO M II (B-12)
XATARESET 9 TO M V (D-8)
ATADD[7]
ATADD[6]
ATADD[5]
ATADD[4]
ATADD[3]
ATADD[2]
ATADD[1]
ATADD[0]
XATAWR 18 TO M V (D-8)
XATAIORDY 19 TO M V (D-8)
XATAINTRQ 20 TO M V (D-8)
ATADA[1] 21 TO M V (D-8)
ATADA[0] 22 TO M V (D-8)
DRV+M5V
DISK_ACCESS_INFO 23 TO M II (B-12)
DRV+3.3V
DVD_DRV+1.2V
ATADD[0-15] 10 TO M V (D-8)
DRV_G_SHOCK 24 TO M II (B-1)
DRV+5V
XATACS1 25 TO M V (D-8)
XATACS3 26 TO M V (D-8)
ATADA[2] 27 TO M V (D-8)
XATADMACK 28 TO M V (D-8)
XATARD 29 TO M V (D-8)
XATADMARQ 30 TO M V (D-8)
ATADD[15]
ATADD[14]
ATADD[13]
ATADD[12]
ATADD[11]
ATADD[10]
ATADD[9]
ATADD[8]
DRV_EMG 39 TO M V (C-1)
TO SIDE L /DISK UNIT
FP3
AD_KEY1(MODE-DIAL) 1
NC 2
EJECT_SW 3
NC 4
GND(LED) 5
POWER_LED 6
DISK_ACCESS_LED 7
ZOOM_COM 8
VREF_H(TELE) 9
VREF_L(WIDE) 10
PHOTO_SW 11
NC 12
POWER_SW 13
NC 14
S/S_SW 15
AD_KEY2(CROSS-KEY) 16
MODE_VDD 17
AD_KEY3(OPE-KEY1) 18
NC 19
GND 20
R3912 100
TP3901
R3911 100
AD_KEY_1 40 TO M II (C-12)
EJECT_SW 41 TO M II (B-12)
POWER_LED 42 TO M II (C-12)
DISC_ACCESS_LED 43 TO M II (C-12)
ZOOM_AD 44 TO M II (C-12)
VREF_H 45 TO M II (C-12)
PHOTO_SW 46 TO M II (A-1)
POWER_SW 47 TO M II (C-12)
SS_SW 48 TO M II (A-1)
AD_KEY_2 49 TO M II (C-12)
REGD+2.8V
AD_KEY_3 50 TO M II (C-12)
TO M IX
TO SIDE R P.C.B. FP6301
FP1
CARD_PRO 1
CARD_DET 2
GND 3
CARD_D2 4
CARD_D3 5
CARD_CMD 6
DSC+315V 7
CARD_CLK 8
GND 9
CARD_D1 10
CARD_D0 11
AUTO/MNL 12
VDD 13
RESET_SW 14
GND 15
NC 16
ACCESS_LED 17
GND 18
SP- 19
SP+ 20
LCD_OPEN 21
GND 22
CARD_PRO 51 TO M V (E-8)
CARD_DET 52 TO M V (E-8)
SDDATA2 53 TO M V (E-8)
SDDATA3 54 TO M V (E-8)
CMD_O 55 TO M V (E-8)
SD_CLK 56 TO M V (E-8)
SDDATA1 57 TO M V (E-8)
SDDATA0 58 TO M V (E-8)
AD_KEY_4 59 TO M II (C-12)
CARD_CONNECT_LED 60 TO M II (C-12)
SPOUT2 61 TO M VII (B-6)
SPOUT1 62 TO M VII (B-6)
LCD_OPEN_SW 63 TO M II (C-1)
TO M II
TO M V
TO M VII
R3925 PT
R3926 PT
R3924 PT
R3923 PT
R3922 PT
R3909 47K
R3910 47K
TP3701
TP3702
TP3703
TP
D
C
B
A
1
2
3
4

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

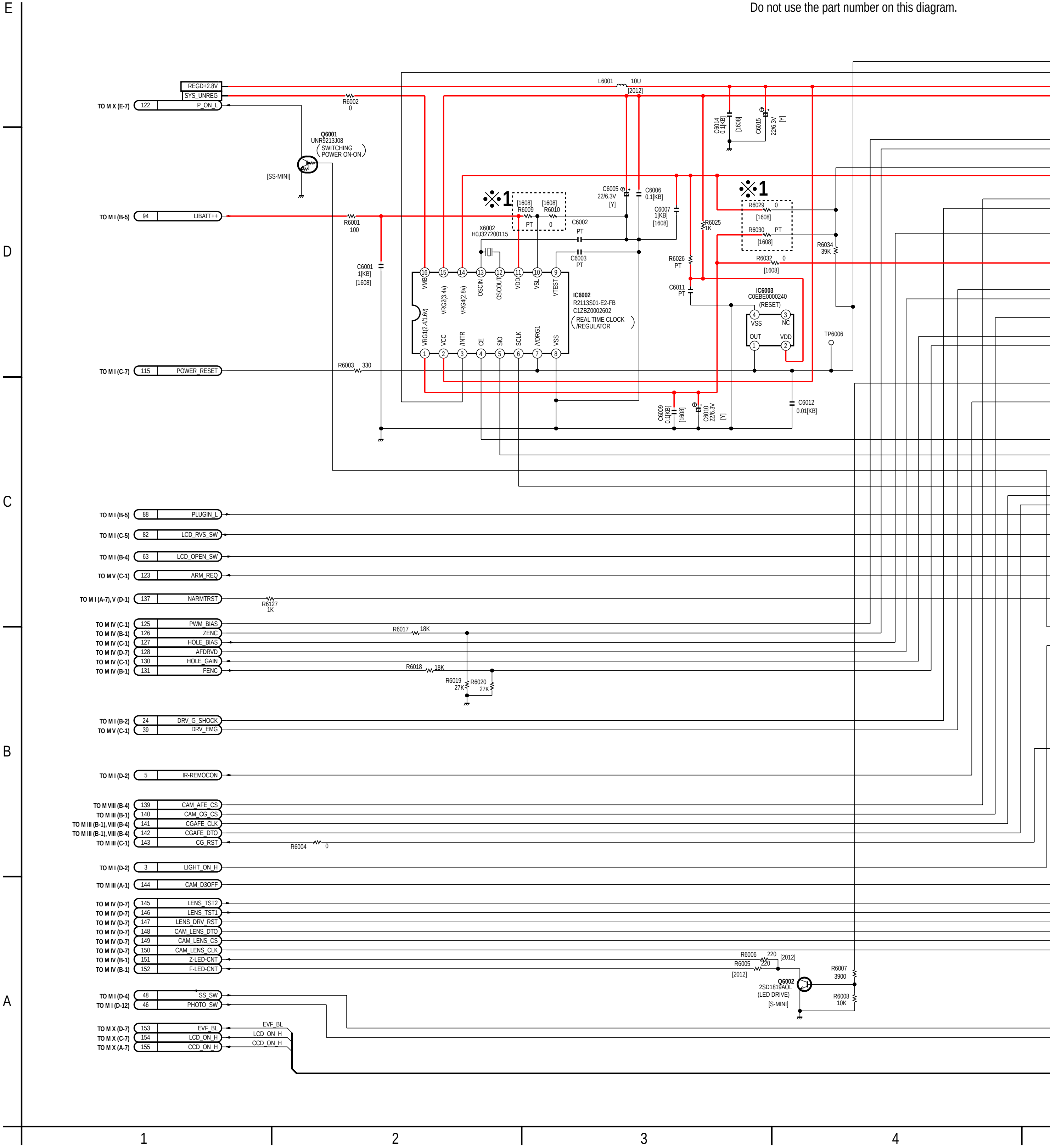

REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
FP4 (TO LCD SW)
1 BL_CONT
2 A_GND
3 A_GND
4 LCD_BL+5V
5 LCD_BL+5V
6 LCD+5V
7 LCD-15V
8 LCD+12V
9 LCD+3V
10 LCD_STH1
11 LCD_OEH
12 LCD_Q2H
13 LCD_CLK1
14 LCD_CLK2
15 LCD_CLK3
16 LCD_R/L
17 LCD_B
18 LCD_G
19 LCD_R
20 LCD_STH2
21 LCD_COM
22 LCD_STV2
23 LCD_OEV
24 LCD_CPV
25 LCD_U/D
26 LCD_STV1
27 GND
28 LCD_RVS
29 NC
30 NC
64 BL_CONT TO M IX (A-5)
LCD_BL+5V
LCD+5V
LCD-15V
LCD+12V
LCD/EVF+2.8V
65 LCD_STH1
66 LCD_OEH
67 LCD_Q2H
68 LCD_CLK1
69 LCD_CLK2
70 LCD_CLK3
71 LCD_R/L
72 LCD_B
73 LCD_G
74 LCD_R
75 LCD_STH2
76 LCD_COM
77 LCD_STV2
78 LCD_OEV
79 LCD_CPV
80 LCD_U/D
81 LCD_STV1
82 LCD_RVS_SW TO M II (C-1)
40 TO M II (C-12)
41 TO M II (B-12)
42 TO M II (C-12)
43 TO M II (C-12)
44 TO M II (C-12)
45 TO M II (C-12)
46 TO M II (A-1)
47 TO M II (C-12)
48 TO M II (A-1)
49 TO M II (C-12)
50 TO M II (C-12)
51 TO M V (E-8)
52 TO M V (E-8)
53 TO M V (E-8)
54 TO M V (E-8)
55 TO M V (E-8)
56 TO M V (E-8)
57 TO M V (E-8)
58 TO M V (E-8)
59 TO M II (C-12)
60 TO M II (C-12)
61 TO M VII (B-6)
62 TO M VII (B-6)
63 TO M II (C-1)
ED
ESS_LED
NNECT_LED
N_SW
R3907 R3906 R3905 R3908 PT
83 PCST[1]
84 PCST[0]
85 DCLK
86 PCST[3]
4 PCST[2]
87 VBUS
88 PLUGIN_L
89 AUDIO_R
90 AUDIO_L
91 Y_OUT
92 C_OUT
93 VIDEO_OUT
94 LIBATT++
95 D+
96 D-
R3915 0
R3914 0
R3913 0
R3917 0
R3916 0
TP3906 AV_DET
TP3905 VIDEO_OUT
B2 (TO JACK P.C.B. B7001)
1 GND
2 GND
3 NC
4 GND
5 VBUS
6 AV_DET_L
7 AV_GND
8 AUDIO_R
9 AV_GND
10 AUDIO_L
11 AV_GND
12 Y_OUT
13 AV_GND
14 C_OUT
15 AV_GND
16 VIDEO
17 LIBATT++
18 GND
19 D+
20 D-
FP5 (TO EVF BACKLIGHT FP901)
1 EVF_VDD
2 EVF_VSS
3 EVF_VSS
4 EVF_HST
5 EVF_HCK2
6 EVF_HCK1
7 EVF_VST
8 EVF_VCK
9 EVF_ENB
10 EVF_PCG
11 EVF_B
12 EVF_R
13 EVF_G
14 EVF_PSIG
15 EVF_COM
16 EVF_BL+5V
EVF_VDD
97 EVF_HST
98 EVF_HCK2
99 EVF_HCK1
100 EVF_VST
101 EVF_VCK
102 EVF_ENB
103 EVF_PCG
104 EVF_B
105 EVF_R
106 EVF_G
107 EVF_PSIG
108 EVF_COM
EVF_BL+5V
TO M IX (B-5)
R3901 R3902 R3903 R3904 PT
R3918 0
R3919 0
R3920 0
R3921 0
109 DRESET TO M II (E-12)
110 SDI_DINT TO M II (D-12)
111 SDAO_TPC TO M II (D-12)
112 DBEG TO M II (E-12)
TP3904
TP3903
113 RXD TO M V (D-1)
114 TXD TO M V (D-1)
115 POWER_RESET TO M II (D-1)
116 DBGR TO M V (D-1)
117 XRST_ARM TO M II (D-12)
118 RTCK TO M V (D-1)
119 ARMTCK TO M V (D-1)
120 TRACECLK TO M V (D-1)
121 TRACEPKT[0-7] TO M V (D-1)
129 PIPESTA[0-2] TO M V (D-1)
132 TRACESYNC TO M V (D-1)
133 EXTRGO0 TO M V (D-1)
REGD+3.3V
134 ARMTMS TO M V (D-1)
135 ARMTDO TO M V (D-1)
136 ARMTDI TO M V (D-1)
137 NARMTRST TO M II (C-1)
138 DBGA TO M V (D-1)
REGD+3.4V
TRACEPKT[1]
TRACEPKT[0]
TRACEPKT[3]
TRACEPKT[2]
TRACEPKT[4]
TRACEPKT[5]
TRACEPKT[6]
TRACEPKT[7]
PIPESTA[2]
PIPESTA[1]
PIPESTA[0]
B3 (NO CONNECTION)
1 NC
2 DRESET
3 SDI/DINT
4 SDAO/TPC
5 /DBEG
6 CAM_AGND
7 RXD
8 TXD
9 SYSTEM_RESET
10 DBGR
11 XRST
12 RTCK
13 GND
14 ARMTCK
15 GND
16 GND
17 TRACECLK
18 GND
19 TRACEPKT[1]
20 TRACEPKT[0]
21 GMD
22 TRACEPKT[3]
23 TRACEPKT[2]
24 TRACEPKT[4]
25 GND
26 TRACEPKT[5]
27 TRACEPKT[6]
28 TRACEPKT[7]
29 GND
30 PIPESTA[2]
31 PIPESTA[1]
32 PIPESTA[0]
33 GND
34 TRACESYNC
35 EXTRGO0
36 VDDIO4
37 ARMTMS
38 ARMTDO
39 ARMTDI
40 NARMTRST
41 DBGA
42 REGD+3.4V
43 DRIVE_TXD
44 DRIVE_RXD
45 GND
46 DCLK
47 PCST[0]
48 PCST[1]
49 PCST[2]
50 PCST[3]
TP3701 TP3702 TP3703 TP3704 TP3705 TP3706
4
5
6
7
8

LINK TO VOLTAGE CHART

LSJB8314
MAIN I SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN II SCHEMATIC DIAGRAM (1/2)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

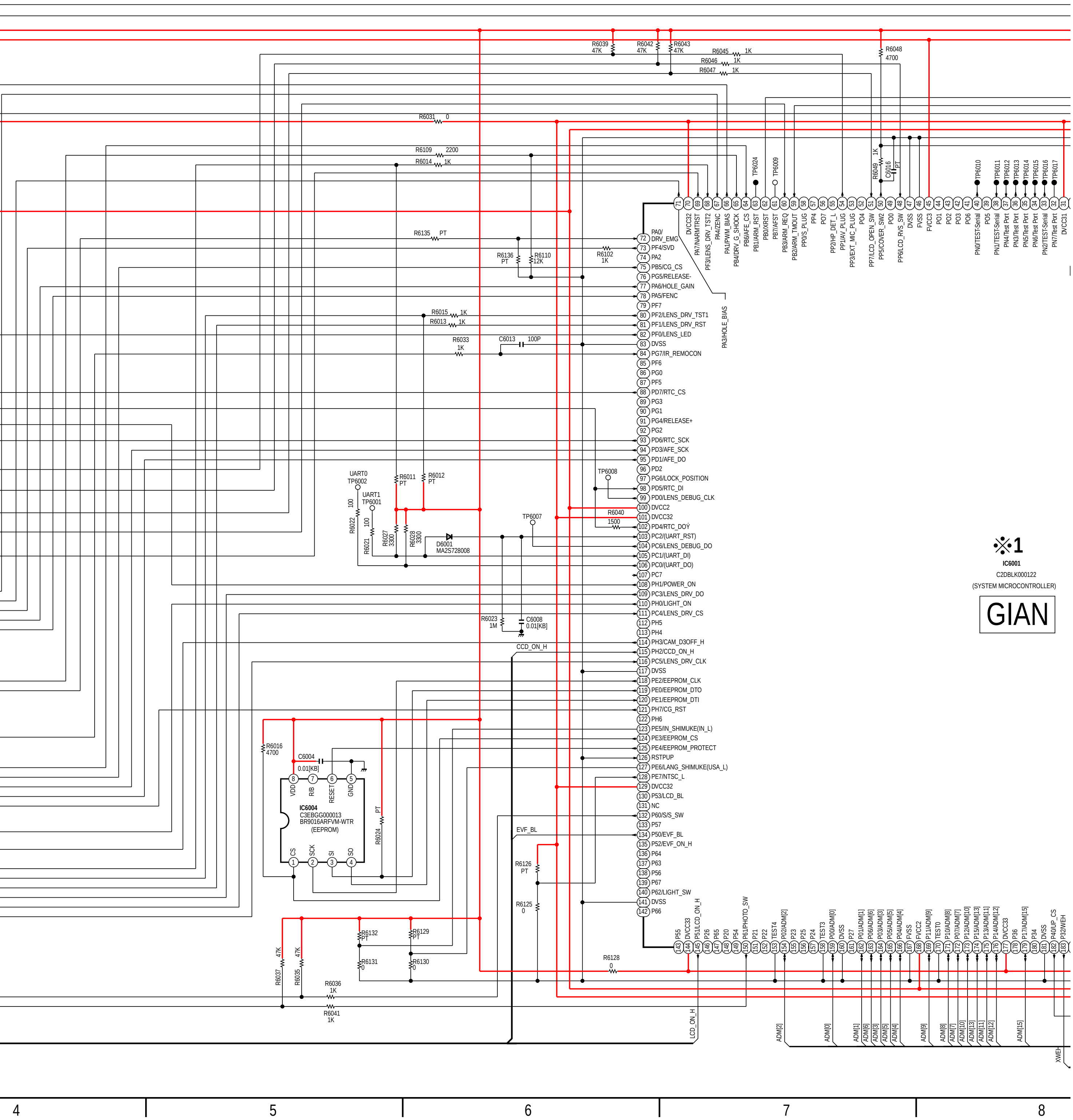


E
D
C
B
A
1
2
3
4
REGD+2.8V
SYS_UNREG
TO M X (E-7) 122 P_ON_L
R6002 0
L6001 10U [2012]
C6014 0.1[KB] [1608]
C6015 22/6.3V [Y]
Q6001 UNR9213J08 (SWITCHING POWER ON-ON)
[SS-MINI]
※1
[1608] R6009 [1608] R6010 PT 0
C6005 22/6.3V [Y]
C6006 0.1[KB]
C6007 1[KB] [1608]
C6002 PT
X6002 H0J327200115
C6003 PT
R6025 1K
R6029 0 [1608]
R6030 PT [1608]
R6034 39K
R6032 0 [1608]
R6026 PT
C6011 PT
TO M I (B-5) 94 LIBATT++
R6001 100
C6001 1[KB] [1608]
VMB VRG2(3.4V) VRG4(2.8V) OSCIN OSCOUT VDD VSL VTEST
VRG1(2.4/1.6V) VCC /INTR CE SIO SCLK /VDRG1 VSS
IC6002 R2113S01-E2-FB C1ZBZ0002602 (REAL TIME CLOCK /REGULATOR)
IC6003 C0EBE0000240 (RESET)
VSS NC OUT VDD
TP6006
TO M I (C-7) 115 POWER_RESET
R6003 330
C6009 0.1[KB] [1608]
C6010 22/6.3V [Y]
C6012 0.01[KB]
TO M I (B-5) 88 PLUGIN_L
TO M I (C-5) 82 LCD_RVS_SW
TO M I (B-4) 63 LCD_OPEN_SW
TO M V (C-1) 123 ARM_REQ
TO M I (A-7), V (D-1) 137 NARMTRST
R6127 1K
TO M IV (C-1) 125 PWM_BIAS
TO M IV (B-1) 126 ZENC
TO M IV (C-1) 127 HOLE_BIAS
TO M IV (D-7) 128 AFDRVD
TO M IV (C-1) 130 HOLE_GAIN
TO M IV (B-1) 131 FENC
R6017 18K
R6018 18K
R6019 27K
R6020 27K
TO M I (B-2) 24 DRV_G_SHOCK
TO M V (C-1) 39 DRV_EMG
TO M I (D-2) 5 IR-REMOCON
TO M VIII (B-4) 139 CAM_AFE_CS
TO M III (B-1) 140 CAM_CG_CS
TO M III (B-1), VIII (B-4) 141 CGAFE_CLK
TO M III (B-1), VIII (B-4) 142 CGAFE_DTO
TO M III (C-1) 143 CG_RST
R6004 0
TO M I (D-2) 3 LIGHT_ON_H
TO M III (A-1) 144 CAM_D3OFF
TO M IV (D-7) 145 LENS_TST2
TO M IV (D-7) 146 LENS_TST1
TO M IV (D-7) 147 LENS_DRV_RST
TO M IV (D-7) 148 CAM_LENS_DTO
TO M IV (D-7) 149 CAM_LENS_CS
TO M IV (D-7) 150 CAM_LENS_CLK
TO M IV (B-1) 151 Z-LED-CNT
TO M IV (B-1) 152 F-LED-CNT
R6006 220 [2012]
R6005 220 [2012]
R6007 3900
Q6002 2SD1819AOL (LED DRIVE) [S-MINI]
R6008 10K
TO M I (D-4) 48 SS_SW
TO M I (D-12) 46 PHOTO_SW
TO M X (D-7) 153 EVF_BL
TO M X (C-7) 154 LCD_ON_H
TO M X (A-7) 155 CCD_ON_H
EVF_BL
LCD_ON_H
CCD_ON_H

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

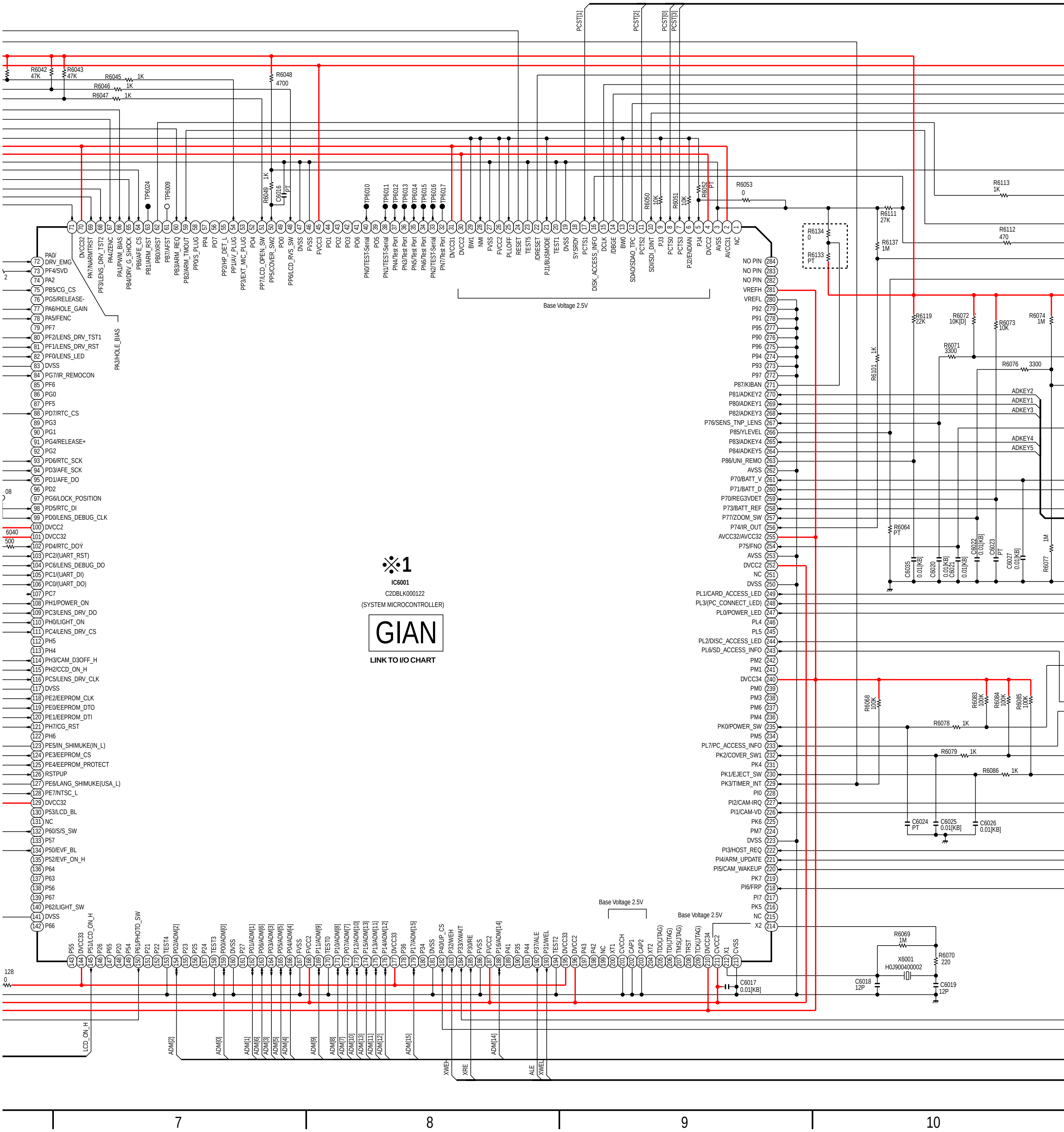
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


※1
IC6001
C2DBLK000122
(SYSTEM MICROCONTROLLER)
GIAN
IC6004
C3EBGG000013
BR9016ARFVM-WTR
(EEPROM)
VDD
R/B
RESET
GND
CS
SCK
SI
SO
C6004
0.01[KB]
R6016
4700
R6024
PT
D6001
MA2S728008
UART0
TP6002
UART1
TP6001
R6022
100
R6021
100
R6027
3300
R6028
3300
R6011
PT
R6012
PT
TP6007
TP6008
R6040
1500
R6023
1M
C6008
0.01[KB]
CCD_ON_H
EVF_BL
R6126
PT
R6125
0
R6128
0
R6132
PT
R6129
PT
R6131
0
R6130
0
R6037
47K
R6035
47K
R6036
1K
R6041
1K
R6039
47K
R6042
47K
R6043
47K
R6045
1K
R6046
1K
R6047
1K
R6048
4700
R6031
0
R6109
2200
R6014
1K
R6135
PT
R6136
PT
R6110
12K
R6102
1K
R6015
1K
R6013
1K
R6033
1K
C6013
100P
R6049
1K
C6016
PT
TP6024
TP6009
TP6010
TP6011
TP6012
TP6013
TP6014
TP6015
TP6016
TP6017
PA3/HOLE_BIAS
72 PA0/DRV_EMG
73 PF4/SVD
74 PA2
75 PB5/CG_CS
76 PG5/RELEASE-
77 PA6/HOLE_GAIN
78 PA5/FENC
79 PF7
80 PF2/LENS_DRV_TST1
81 PF1/LENS_DRV_RST
82 PF0/LENS_LED
83 DVSS
84 PG7/IR_REMOCON
85 PF6
86 PG0
87 PF5
88 PD7/RTC_CS
89 PG3
90 PG1
91 PG4/RELEASE+
92 PG2
93 PD6/RTC_SCK
94 PD3/AFE_SCK
95 PD1/AFE_DO
96 PD2
97 PG6/LOCK_POSITION
98 PD5/RTC_DI
99 PD0/LENS_DEBUG_CLK
100 DVCC2
101 DVCC32
102 PD4/RTC_DOY
103 PC2/(UART_RST)
104 PC6/LENS_DEBUG_DO
105 PC1/(UART_DI)
106 PC0/(UART_DO)
107 PC7
108 PH1/POWER_ON
109 PC3/LENS_DRV_DO
110 PH0/LIGHT_ON
111 PC4/LENS_DRV_CS
112 PH5
113 PH4
114 PH3/CAM_D3OFF_H
115 PH2/CCD_ON_H
116 PC5/LENS_DRV_CLK
117 DVSS
118 PE2/EEPROM_CLK
119 PE0/EEPROM_DTO
120 PE1/EEPROM_DTI
121 PH7/CG_RST
122 PH6
123 PE5/IN_SHIMUKE(IN_L)
124 PE3/EEPROM_CS
125 PE4/EEPROM_PROTECT
126 RSTPUP
127 PE6/LANG_SHIMUKE(USA_L)
128 PE7/NTSC_L
129 DVCC32
130 P53/LCD_BL
131 NC
132 P60/S/S_SW
133 P57
134 P50/EVF_BL
135 P52/EVF_ON_H
136 P64
137 P63
138 P56
139 P67
140 P62/LIGHT_SW
141 DVSS
142 P66
71 DVCC32
70 PA7/NARMTRST
69 PF3/LENS_DRV_TST2
68 PA4/ZENC
67 PA1/PWM_BIAS
66 PB4/DRV_G_SHOCK
65 PB6/AFE_CS
64 PB1/ARM_RST
63 PB0/XRST
62 PB7/AFST
61 PB3/ARM_REQ
60 PB2/ARM_TMOUT
59 PP0/S_PLUG
58 PP4
57 PO7
56 PP2/HP_DET_L
55 PP1/AV_PLUG
54 PP3/EXT_MIC_PLUG
53 PO4
52 PP7/LCD_OPEN_SW
51 PP5/COVER_SW2
50 PO0
49 PP6/LCD_RVS_SW
48 DVSS
47 FVSS
46 FVCC3
45 PO1
44 PO2
43 PO3
42 PO6
41 PN0/TEST-Serial
40 PO5
39 PN1/TEST-Serial
38 PN4/Test Port
37 PN3/Test Port
36 PN5/Test Port
35 PN6/Test Port
34 PN2/TEST-Serial
33 PN7/Test Port
32 DVCC31
31
143 P55
144 DVCC33
145 P51/LCD_ON_H
146 P26
147 P65
148 P20
149 P54
150 P61/PHOTO_SW
151 P21
152 P22
153 TEST4
154 P02/ADM[2]
155 P23
156 P25
157 P24
158 TEST3
159 P00/ADM[0]
160 DVSS
161 P27
162 P01/ADM[1]
163 P06/ADM[6]
164 P03/ADM[3]
165 P05/ADM[5]
166 P04/ADM[4]
167 FVSS
168 FVCC2
169 P11/ADM[9]
170 TEST0
171 P10/ADM[8]
172 P07/ADM[7]
173 P12/ADM[10]
174 P15/ADM[13]
175 P13/ADM[11]
176 P14/ADM[12]
177 DVCC33
178 P16
179 P17/ADM[15]
180 P34
181 DVSS
182 P40/UP_CS
183 P32/WEH
LCD_ON_H
ADM[2]
ADM[0]
ADM[1]
ADM[6]
ADM[3]
ADM[5]
ADM[4]
ADM[9]
ADM[8]
ADM[7]
ADM[10]
ADM[13]
ADM[11]
ADM[12]
ADM[15]
XWEH
4
5
6
7
8

LINK TO VOLTAGE CHART
LSJB8314
MAIN II (1/2) SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN II SCHEMATIC DIAGRAM (2/2)

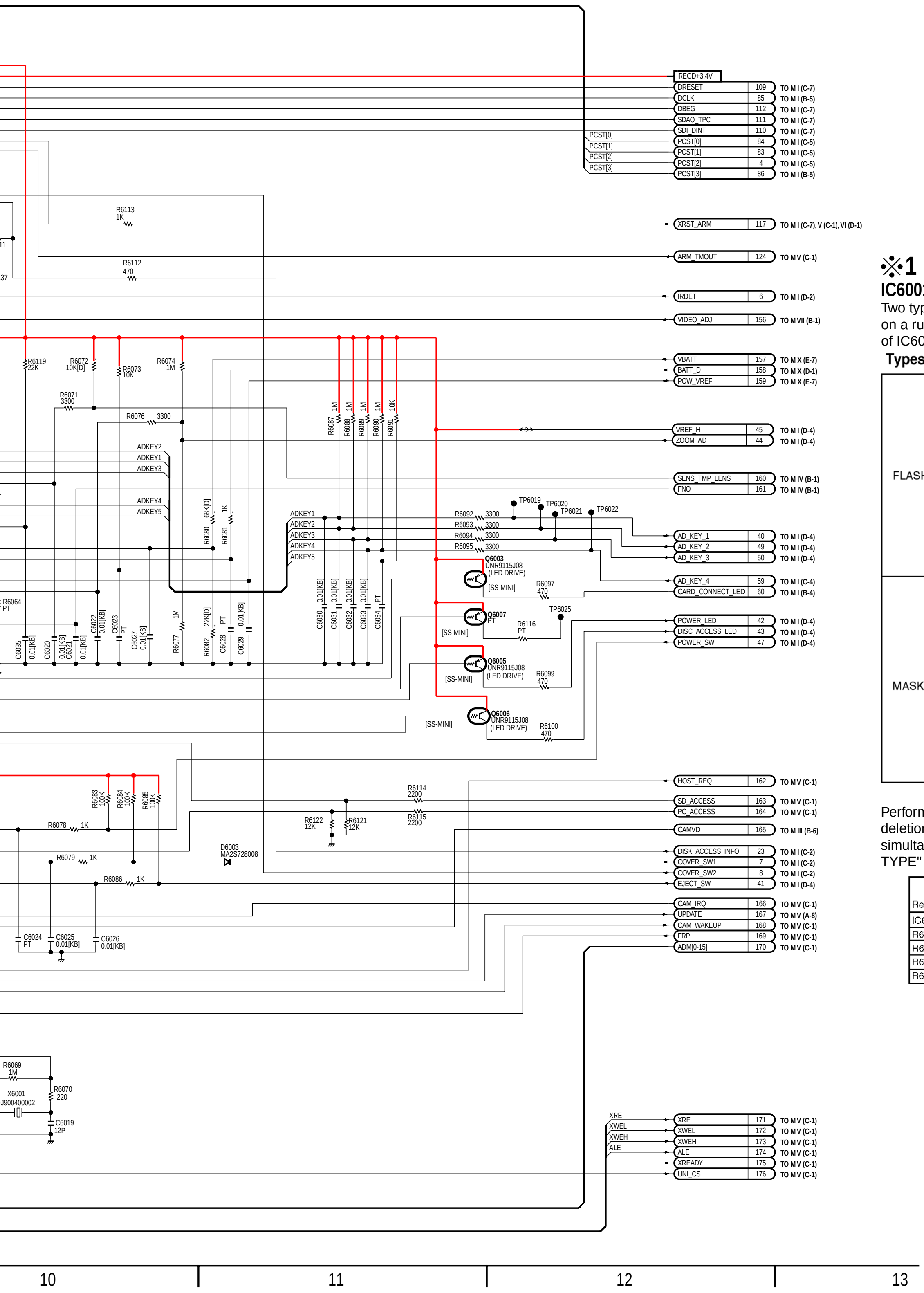
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


※1
IC6001
C2DBLK000122
(SYSTEM MICROCONTROLLER)
GIAN
LINK TO I/O CHART
Base Voltage 2.5V
PCST[1]
PCST[2]
PCST[0]
PCST[3]
R6042 47K
R6043 47K
R6045 1K
R6046 1K
R6047 1K
R6048 4700
R6049 1K
C6016 PT
TP6024
TP6009
TP6010
TP6011
TP6012
TP6013
TP6014
TP6015
TP6016
TP6017
R6050 10K
R6051 10K
R6052 PT
R6053 0
R6113 1K
R6111 27K
R6112 470
R6137 1M
R6134 0
R6133 PT
R6101 1K
R6119 22K
R6072 10K[D]
R6073 10K
R6074 1M
R6071 3300
R6076 3300
ADKEY2
ADKEY1
ADKEY3
ADKEY4
ADKEY5
R6064 PT
C6035 0.01[KB]
C6020 0.01[KB]
C6021 0.01[KB]
C6022 0.01[KB]
C6023 PT
C6027 0.01[KB]
R6077 1M
R6068 100K
R6083 100K
R6084 100K
R6085 100K
R6078 1K
R6079 1K
R6086 1K
C6024 PT
C6025 0.01[KB]
C6026 0.01[KB]
R6069 1M
X6001 H0J900400002
R6070 220
C6018 12P
C6019 12P
C6017 0.01[KB]
PA3/HOLE_BIAS
71 DVCC32
70 PA7/NARMTRST
69 PF3/LENS_DRV_TST2
68 PA4/ZENC
67 PA1/PWM_BIAS
66 PB4/DRV_G_SHOCK
65 PB6/AFE_CS
64 PB1/ARM_RST
63 PB0/XRST
62 PB7/AFST
61 PB3/ARM_REQ
60 PB2/ARM_TMOUT
59 PP0/S_PLUG
58 PP4
57 PO7
56 PP2/HP_DET_L
55 PP3/AV_PLUG
54 PP3/EXT_MIC_PLUG
53 PO4
52 PP7/LCD_OPEN_SW
51 PP5/COVER_SW2
50 PO0
49 PP6/LCD_R/S_SW
48 DVSS
47 FVSS
46 FVCC3
45 PO1
44 PO2
43 PO3
42 PO6
41 PN0/TEST-Serial
40 PO5
39 PN1/TEST-Serial
38 PN4/Test Port
37 PN3/Test Port
36 PN5/Test Port
35 PN6/Test Port
34 PN2/TEST-Serial
33 PN7/Test Port
32 DVCC31
31 DVCC2
30 BW1
29 NMI
28 FVSS
27 FVCC2
26 PLLOFF
25 RESET
24 TEST5
23 /DRESET
22 PJ1/BUSMODE
21 TEST1
20 DVSS
19 SYSRDY
18 PCTS1
17 DISK_ACCESS_INFO
16 DCLK
15 /DBGE
14 BW0
13 SDAO/SDAO_TPC
12 PCTS2
11 SDI/SDI_DINT
10 PJ3
9 PCTS0
8 PCTS3
7 PJ2/ENDIAN
6 PJ4
5 DVCC2
4 AVSS
3 AVCC31
2 NC
1
72 PA0/DRV_EMG
73 PF4/SVD
74 PA2
75 PB5/CG_CS
76 PG5/RELEASE-
77 PA6/HOLE_GAIN
78 PA5/FENC
79 PF7
80 PF2/LENS_DRV_TST1
81 PF1/LENS_DRV_RST
82 PF0/LENS_LED
83 DVSS
84 PG7/IR_REMOCON
85 PF6
86 PG0
87 PF5
88 PD7/RTC_CS
89 PG3
90 PG1
91 PG4/RELEASE+
92 PG2
93 PD6/RTC_SCK
94 PD3/AFE_SCK
95 PD1/AFE_DO
96 PD2
97 PG6/LOCK_POSITION
98 PD5/RTC_DI
99 PD0/LENS_DEBUG_CLK
100 DVCC2
101 DVCC32
102 PD4/RTC_DOY
103 PC2/(UART_RST)
104 PC6/LENS_DEBUG_DO
105 PC1/(UART_DI)
106 PC0/(UART_DO)
107 PC7
108 PH1/POWER_ON
109 PC3/LENS_DRV_DO
110 PH0/LIGHT_ON
111 PC4/LENS_DRV_CS
112 PH5
113 PH4
114 PH3/CAM_D3OFF_H
115 PH2/CCD_ON_H
116 PC5/LENS_DRV_CLK
117 DVSS
118 PE2/EEPROM_CLK
119 PE0/EEPROM_DTO
120 PE1/EEPROM_DTI
121 PH7/CG_RST
122 PH6
123 PE5/IN_SHIMUKE(IN_L)
124 PE3/EEPROM_CS
125 PE4/EEPROM_PROTECT
126 RSTPUP
127 PE6/LANG_SHIMUKE(USA_L)
128 PE7/NTSC_L
129 DVCC32
130 P53/LCD_BL
131 NC
132 P60/S/S_SW
133 P57
134 P50/EVF_BL
135 P52/EVF_ON_H
136 P64
137 P63
138 P56
139 P67
140 P62/LIGHT_SW
141 DVSS
142 P66
143 P55
144 DVCC33
145 P51/LCD_ON_H
146 P26
147 P65
148 P20
149 P54
150 P61/PHOTO_SW
151 P21
152 P22
153 TEST4
154 P02/ADM[2]
155 P23
156 P25
157 P24
158 TEST3
159 P00/ADM[0]
160 DVSS
161 P27
162 P01/ADM[1]
163 P06/ADM[6]
164 P03/ADM[3]
165 P05/ADM[5]
166 P04/ADM[4]
167 FVSS
168 FVCC2
169 P11/ADM[9]
170 TEST0
171 P10/ADM[8]
172 P07/ADM[7]
173 P12/ADM[10]
174 P15/ADM[13]
175 P13/ADM[11]
176 P14/ADM[12]
177 DVCC33
178 P36
179 P17/ADM[15]
180 P34
181 DVSS
182 P40/UP_CS
183 P32/WEH
184 P33/XWAIT
185 P30/RE
186 FVSS
187 FVCC2
188 P16/ADM[14]
189 P41
190 P35
191 P44
192 P37/ALE
193 P31/WEL
194 TEST2
195 DVCC33
196 DVCC2
197 P43
198 P42
199 NC
200 XT1
201 CVCCH
202 CAP1
203 CAP2
204 XT2
205 TDO(JTAG)
206 TDI(JTAG)
207 TMS(JTAG)
208 TRST
209 TCK(JTAG)
210 DVCC34
211 CVCC2
212 X1
213 CVSS
214 X2
215 NC
216 PK5
217 PI7
218 PI6/FRP
219 PK7
220 PI5/CAM_WAKEUP
221 PI4/ARM_UPDATE
222 PI3/HOST_REQ
223 DVSS
224 PM7
225 PK6
226 PI1/CAM-VD
227 PI2/CAM-IRQ
228 PI0
229 PK3/TIMER_INT
230 PK1/EJECT_SW
231 PK4
232 PK2/COVER_SW1
233 PL7/PC_ACCESS_INFO
234 PM5
235 PK0/POWER_SW
236 PM4
237 PM6
238 PM3
239 PM0
240 DVCC34
241 PM1
242 PM2
243 PL6/SD_ACCESS_INFO
244 PL2/DISC_ACCESS_LED
245 PL5
246 PL4
247 PL0/POWER_LED
248 PL3/(PC_CONNECT_LED)
249 PL1/CARD_ACCESS_LED
250 DVSS
251 NC
252 DVCC2
253 AVSS
254 P75/FNO
255 AVCC32/AVCC32
256 P74/IR_OUT
257 P77/ZOOM_SW
258 P73/BATT_REF
259 P70/REG3VDET
260 P71/BATT_D
261 P70/BATT_V
262 AVSS
263 P86/UNI_REMO
264 P84/ADKEY5
265 P83/ADKEY4
266 P85/YLEVEL
267 P76/SENS_TNP_LENS
268 P82/ADKEY3
269 P80/ADKEY1
270 P81/ADKEY2
271 P87/KIBAN
272 P97
273 P93
274 P94
275 P96
276 P90
277 P95
278 P91
279 P92
280 VREFL
281 VREFH
282 NO PIN
283 NO PIN
284 NO PIN
LCD_ON_H
ADM[2]
ADM[0]
ADM[1]
ADM[6]
ADM[3]
ADM[5]
ADM[4]
ADM[9]
ADM[8]
ADM[7]
ADM[10]
ADM[13]
ADM[11]
ADM[12]
ADM[15]
ADM[14]
XWEH
XRE
ALE
XWEL
6040
500
08
128 0
7
8
9
10

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



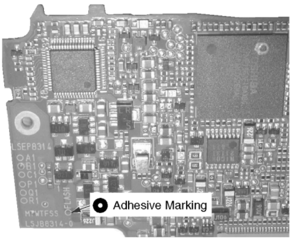
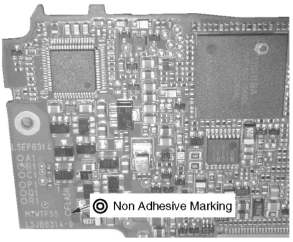
REGD+3.4V
DRESET 109 TO M I (C-7)
DCLK 85 TO M I (B-5)
DBEG 112 TO M I (C-7)
SDAO_TPC 111 TO M I (C-7)
SDI_DINT 110 TO M I (C-7)
PCST[0] 84 TO M I (C-5)
PCST[1] 83 TO M I (C-5)
PCST[2] 4 TO M I (C-5)
PCST[3] 86 TO M I (B-5)
R6113 1K
XRST_ARM 117 TO M I (C-7), V (C-1), VI (D-1)
ARM_TMOUT 124 TO M V (C-1)
R6112 470
IRDET 6 TO M I (D-2)
VIDEO_ADJ 156 TO M VII (B-1)
VBATT 157 TO M X (E-7)
BATT_D 158 TO M X (D-1)
POW_VREF 159 TO M X (E-7)
R6119 22K
R6072 10K[D]
R6073 10K
R6074 1M
R6071 3300
R6076 3300
R6087 1M
R6088 1M
R6089 1M
R6090 1M
R6091 10K
VREF_H 45 TO M I (D-4)
ZOOM_AD 44 TO M I (D-4)
ADKEY1
ADKEY2
ADKEY3
ADKEY4
ADKEY5
SENS_TMP_LENS 160 TO M IV (B-1)
FNO 161 TO M IV (B-1)
R6080 68K[D]
R6081 1K
TP6019
TP6020
TP6021
TP6022
R6092 3300
R6093 3300
R6094 3300
R6095 3300
AD_KEY_1 40 TO M I (D-4)
AD_KEY_2 49 TO M I (D-4)
AD_KEY_3 50 TO M I (D-4)
Q6003 UNR9115J08 (LED DRIVE)
[SS-MINI]
R6097 470
AD_KEY_4 59 TO M I (C-4)
CARD_CONNECT_LED 60 TO M I (B-4)
R6064 PT
C6035 0.01[KB]
C6020 0.01[KB]
C6021 0.01[KB]
C6022 0.01[KB]
C6023 PT
C6027 0.01[KB]
R6077 1M
R6082 22K[D]
C6028 PT
C6029 0.01[KB]
C6030 0.01[KB]
C6031 0.01[KB]
C6032 0.01[KB]
C6033 0.01[KB]
C6034 PT
Q6007 PT
TP6025
R6116 PT
POWER_LED 42 TO M I (D-4)
DISC_ACCESS_LED 43 TO M I (D-4)
POWER_SW 47 TO M I (D-4)
Q6005 UNR9115J08 (LED DRIVE)
R6099 470
Q6006 UNR9115J08 (LED DRIVE)
R6100 470
R6083 100K
R6084 100K
R6085 100K
R6114 2200
R6115 2200
R6122 12K
R6121 12K
HOST_REQ 162 TO M V (C-1)
SD_ACCESS 163 TO M V (C-1)
PC_ACCESS 164 TO M V (C-1)
CAMVD 165 TO M III (B-6)
R6078 1K
R6079 1K
R6086 1K
D6003 MA2S728008
DISK_ACCESS_INFO 23 TO M I (C-2)
COVER_SW1 7 TO M I (C-2)
COVER_SW2 8 TO M I (C-2)
EJECT_SW 41 TO M I (D-4)
CAM_IRQ 166 TO M V (C-1)
UPDATE 167 TO M V (A-8)
CAM_WAKEUP 168 TO M V (C-1)
FRP 169 TO M V (C-1)
ADM[0-15] 170 TO M V (C-1)
C6024 PT
C6025 0.01[KB]
C6026 0.01[KB]
R6069 1M
X6001 J900400002
R6070 220
C6019 12P
XRE 171 TO M V (C-1)
XWEL 172 TO M V (C-1)
XWEH 173 TO M V (C-1)
ALE 174 TO M V (C-1)
XREADY 175 TO M V (C-1)
UNI_CS 176 TO M V (C-1)
10
11
12
13

※1

IC6001 replacement note:

Two types of IC6001 (FLASH or MASK) are used on a running change basis, however MASK TYPE of IC6001 is supplied only as a replacement part.

Types of IC6001

FLASH TYPE	 Adhesive Marking
MASK TYPE	 Non Adhesive Marking

Perform the addtion (R6010 and R6029) and also deletion (R6009 and R6030) of the following part simultaneously, when exchanging from the "FLASH TYPE" to the "MASK TYPE" of IC6001.

	FLASH TYPE	MASK TYPE	
Ref No.	Part No.	Part No.	Part Name
IC6001	----------	C2DBLK000122	IC
R6009	ERJ3GEY0R00V	----------	Resistor
R6010	----------	ERJ3GEY0R00V	Resistor
R6029	----------	ERJ3GEY0R00V	Resistor
R6030	ERJ3GEY0R00V	----------	Resistor

LINK TO VOLTAGE CHART

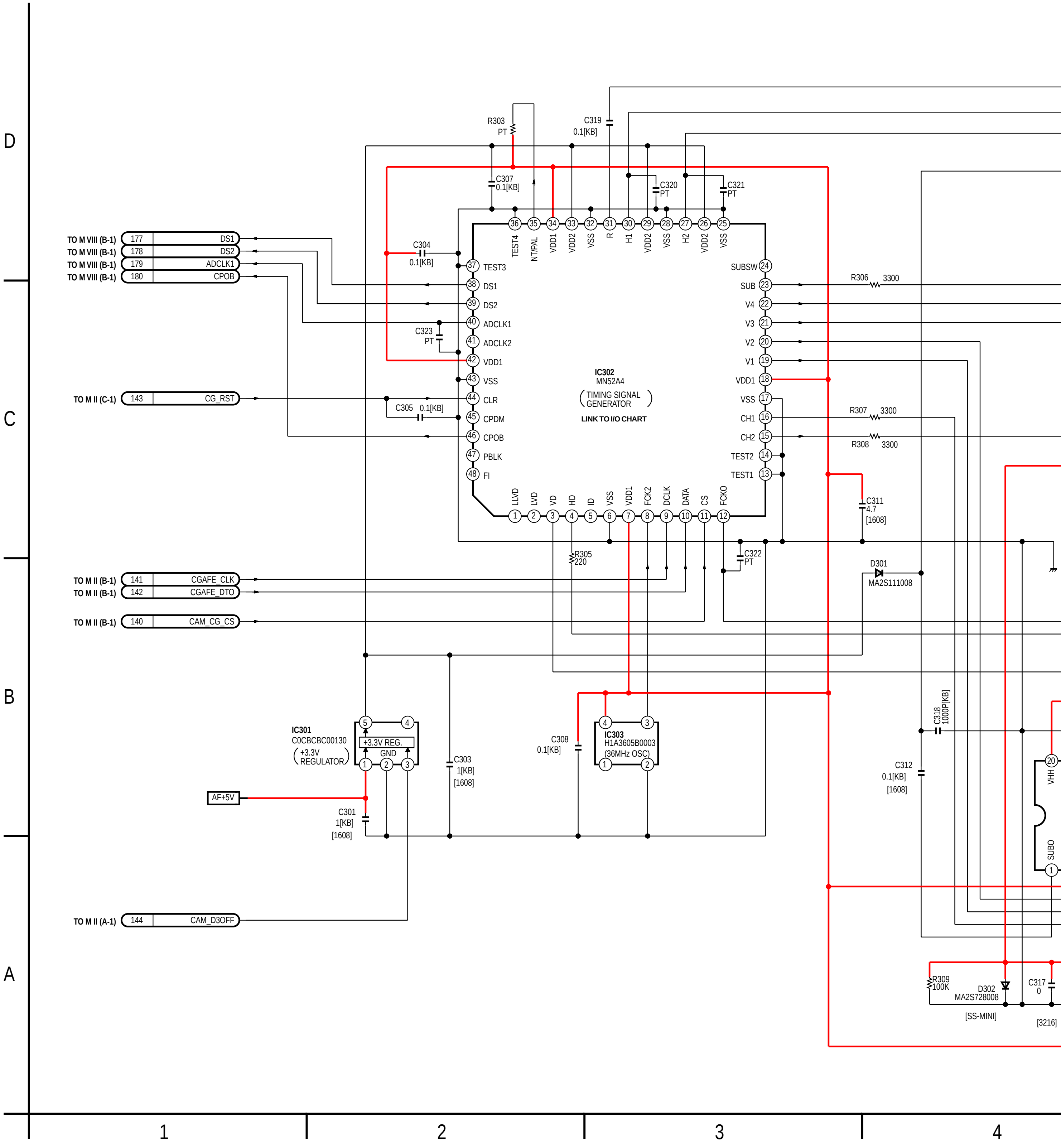
LSJB8314

MAIN II (2/2) SCHEMATIC DIAGRAM

VDR-D100PL/VDR-D200PL

MAIN III SCHEMATIC DIAGRAM

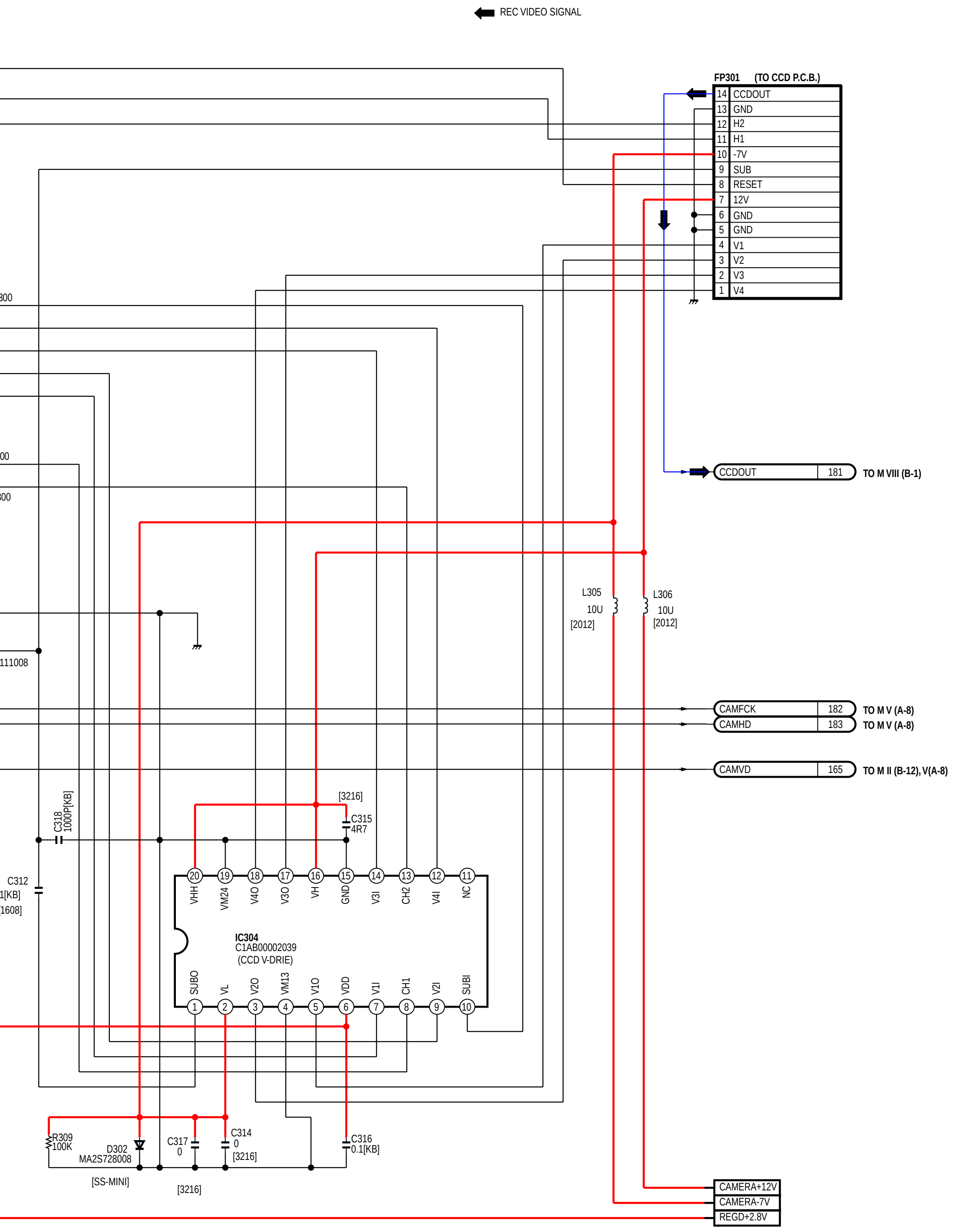
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


D
C
B
A
1
2
3
4
TO M VIII (B-1) 177 DS1
TO M VIII (B-1) 178 DS2
TO M VIII (B-1) 179 ADCLK1
TO M VIII (B-1) 180 CPOB
TO M II (C-1) 143 CG_RST
TO M II (B-1) 141 CGAFE_CLK
TO M II (B-1) 142 CGAFE_DTO
TO M II (B-1) 140 CAM_CG_CS
TO M II (A-1) 144 CAM_D3OFF
AF+5V
R303 PT
C307 0.1[KB]
C319 0.1[KB]
C320 PT
C321 PT
C304 0.1[KB]
C323 PT
C305 0.1[KB]
IC302
MN52A4
TIMING SIGNAL GENERATOR
LINK TO I/O CHART
36 TEST4
35 NT/PAL
34 VDD1
33 VDD2
32 VSS
31 R
30 H1
29 VDD2
28 VSS
27 H2
26 VDD2
25 VSS
37 TEST3
38 DS1
39 DS2
40 ADCLK1
41 ADCLK2
42 VDD1
43 VSS
44 CLR
45 CPDM
46 CPOB
47 PBLK
48 FI
24 SUBSW
23 SUB
22 V4
21 V3
20 V2
19 V1
18 VDD1
17 VSS
16 CH1
15 CH2
14 TEST2
13 TEST1
1 LLVD
2 LVD
3 VD
4 HD
5 ID
6 VSS
7 VDD1
8 FCK2
9 DCLK
10 DATA
11 CS
12 FCKO
R306 3300
R307 3300
R308 3300
C311 4.7 [1608]
R305 220
C322 PT
D301 MA2S111008
C318 1000P[KB]
C312 0.1[KB] [1608]
IC301
C0CBCBC00130
+3.3V REGULATOR
+3.3V REG.
GND
5 4 1 2 3
C303 1[KB] [1608]
C301 1[KB] [1608]
C308 0.1[KB]
IC303
H1A3605B0003
(36MHz OSC)
4 3 1 2
20 VHH
1 SUBO
R309 100K
D302 MA2S728008
[SS-MINI]
C317 0
[3216]

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

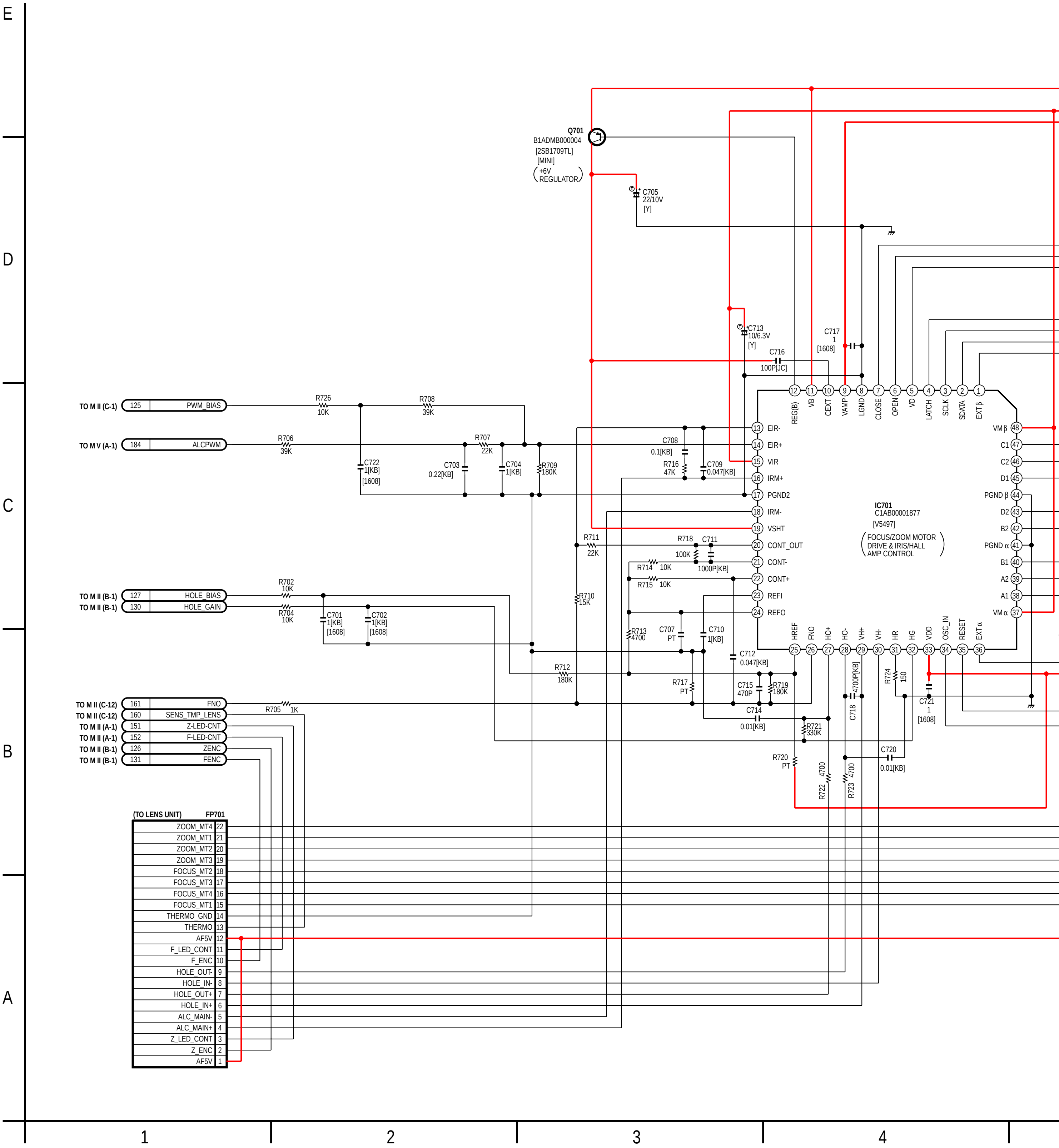

REC VIDEO SIGNAL
FP301 (TO CCD P.C.B.)
14 CCDOUT
13 GND
12 H2
11 H1
10 -7V
9 SUB
8 RESET
7 12V
6 GND
5 GND
4 V1
3 V2
2 V3
1 V4
300
00
300
111008
CCDOUT 181 TO M VIII (B-1)
L305 10U [2012]
L306 10U [2012]
CAMFCK 182 TO M V (A-8)
CAMHD 183 TO M V (A-8)
CAMVD 165 TO M II (B-12), V(A-8)
C318 1000P[KB]
C312
1[KB]
1608]
[3216]
C315 4R7
VHH VM24 V4O V3O VH GND V3I CH2 V4I NC
IC304
C1AB00002039
(CCD V-DRIE)
SUBO VL V2O VM13 V1O VDD V1I CH1 V2I SUBI
R309 100K
D302 MA2S728008
[SS-MINI]
C317 0
[3216]
C314 0 [3216]
C316 0.1[KB]
CAMERA+12V
CAMERA-7V
REGD+2.8V

LINK TO VOLTAGE CHART

LSJB8314
MAIN III SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN IV SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

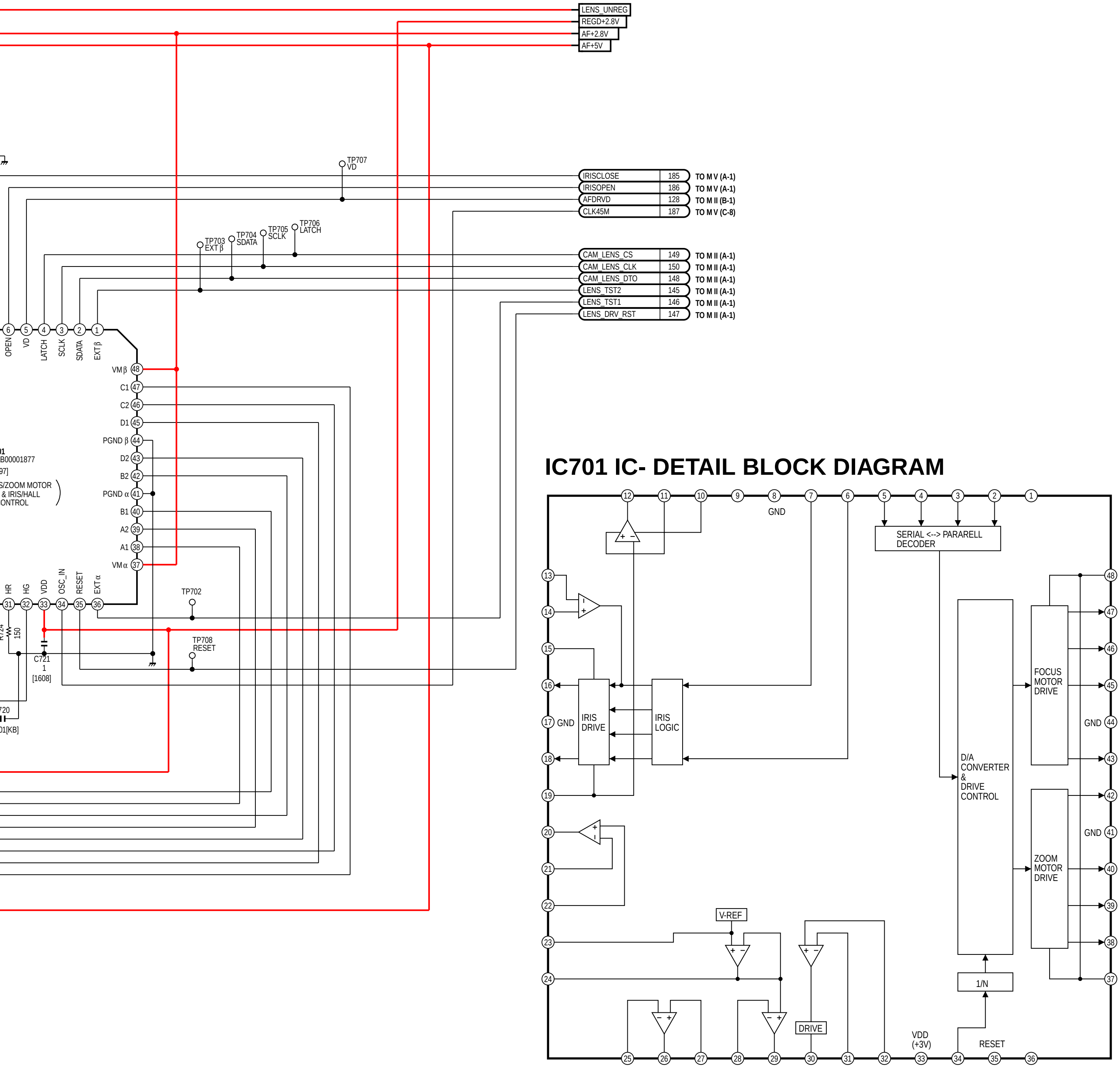

E
D
C
B
A
1
2
3
4
Q701
B1ADMB000004
[2SB1709TL]
[MINI]
+6V REGULATOR
C705 22/10V [Y]
C713 10/6.3V [Y]
C717 1 [1608]
C716 100P[JC]
TO M II (C-1) 125 PWM_BIAS
TO M V (A-1) 184 ALCPWM
R726 10K
R708 39K
R706 39K
R707 22K
C722 1[KB] [1608]
C703 0.22[KB]
C704 1[KB]
R709 180K
C708 0.1[KB]
R716 47K
C709 0.047[KB]
R711 22K
R718 100K
C711 1000P[KB]
R714 10K
R715 10K
R710 15K
R713 4700
C707 PT
C710 1[KB]
C712 0.047[KB]
R712 180K
R717 PT
C715 470P
R719 180K
C714 0.01[KB]
R721 330K
R720 PT
R722 4700
R723 4700
C718 4700P[KB]
R724 150
C721 1 [1608]
C720 0.01[KB]
TO M II (B-1) 127 HOLE_BIAS
TO M II (B-1) 130 HOLE_GAIN
R702 10K
R704 10K
C701 1[KB] [1608]
C702 1[KB] [1608]
TO M II (C-12) 161 FNO
TO M II (C-12) 160 SENS_TMP_LENS
TO M II (A-1) 151 Z-LED-CNT
TO M II (A-1) 152 F-LED-CNT
TO M II (B-1) 126 ZENC
TO M II (B-1) 131 FENC
R705 1K
IC701
C1AB00001877
[V5497]
FOCUS/ZOOM MOTOR DRIVE & IRIS/HALL AMP CONTROL
12 REG(B)
11 VB
10 CEXT
9 VAMP
8 LGND
7 CLOSE
6 OPEN
5 VD
4 LATCH
3 SCLK
2 SDATA
1 EXT β
13 EIR-
14 EIR+
15 VIR
16 IRM+
17 PGND2
18 IRM-
19 VSHT
20 CONT_OUT
21 CONT-
22 CONT+
23 REFI
24 REFO
25 HREF
26 FNO
27 HO+
28 HO-
29 VH+
30 VH-
31 HR
32 HG
33 VDD
34 OSC_IN
35 RESET
36 EXT α
48 VM β
47 C1
46 C2
45 D1
44 PGND β
43 D2
42 B2
41 PGND α
40 B1
39 A2
38 A1
37 VM α
(TO LENS UNIT) FP701
22 ZOOM_MT4
21 ZOOM_MT1
20 ZOOM_MT2
19 ZOOM_MT3
18 FOCUS_MT2
17 FOCUS_MT3
16 FOCUS_MT4
15 FOCUS_MT1
14 THERMO_GND
13 THERMO
12 AF5V
11 F_LED_CONT
10 F_ENC
9 HOLE_OUT-
8 HOLE_IN-
7 HOLE_OUT+
6 HOLE_IN+
5 ALC_MAIN-
4 ALC_MAIN+
3 Z_LED_CONT
2 Z_ENC
1 AF5V

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IC701 IC- DETAIL BLOCK DIAGRAM



LENS_UNREG
REGD+2.8V
AF+2.8V
AF+5V
TP707
VD
IRISCLOSE 185 TO M V (A-1)
IRISOPEN 186 TO M V (A-1)
AFDRVD 128 TO M II (B-1)
CLK45M 187 TO M V (C-8)
TP703
EXT β
TP704
SDATA
TP705
SCLK
TP706
LATCH
CAM_LENS_CS 149 TO M II (A-1)
CAM_LENS_CLK 150 TO M II (A-1)
CAM_LENS_DTO 148 TO M II (A-1)
LENS_TST2 145 TO M II (A-1)
LENS_TST1 146 TO M II (A-1)
LENS_DRV_RST 147 TO M II (A-1)
OPEN
VD
LATCH
SCLK
SDATA
EXT β
VM β
C1
C2
D1
PGND β
D2
B2
PGND α
B1
A2
A1
VM α
HR
HG
VDD
OSC_IN
RESET
EXT α
01
B00001877
97]
S/ZOOM MOTOR
& IRIS/HALL
ONTROL
TP702
TP708
RESET
R724
150
C721
1
[1608]
720
01[KB]
GND
SERIAL <--> PARARELL
DECODER
IRIS
DRIVE
IRIS
LOGIC
GND
D/A
CONVERTER
&
DRIVE
CONTROL
FOCUS
MOTOR
DRIVE
ZOOM
MOTOR
DRIVE
GND
GND
V-REF
DRIVE
1/N
VDD
(+3V)
RESET

5 6 7

LINK TO VOLTAGE CHART

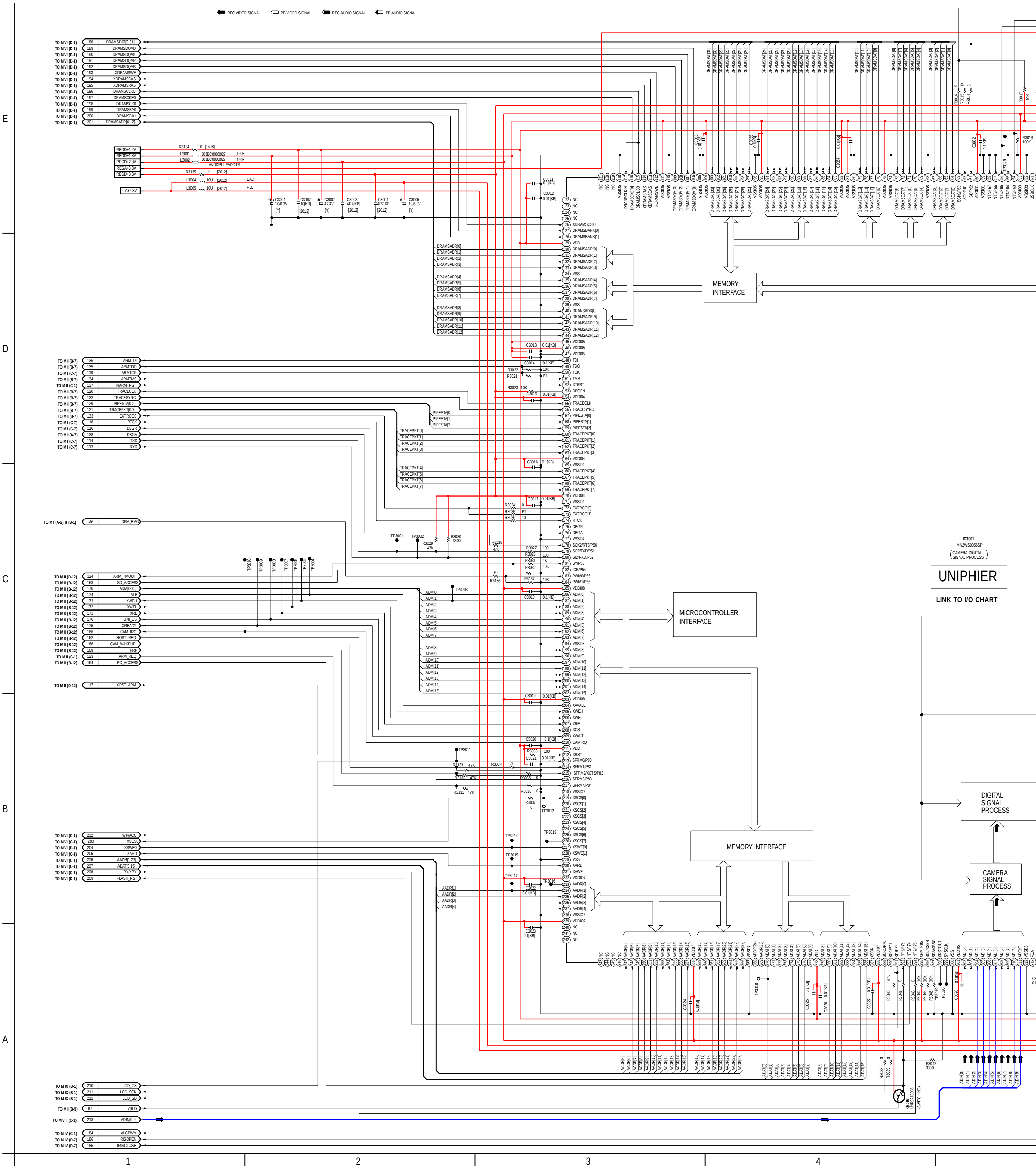
LSJB8314

MAIN IV SCHEMATIC DIAGRAM

VDR-D100PL/VDR-D200PL

MAIN V SCHEMATIC DIAGRAM

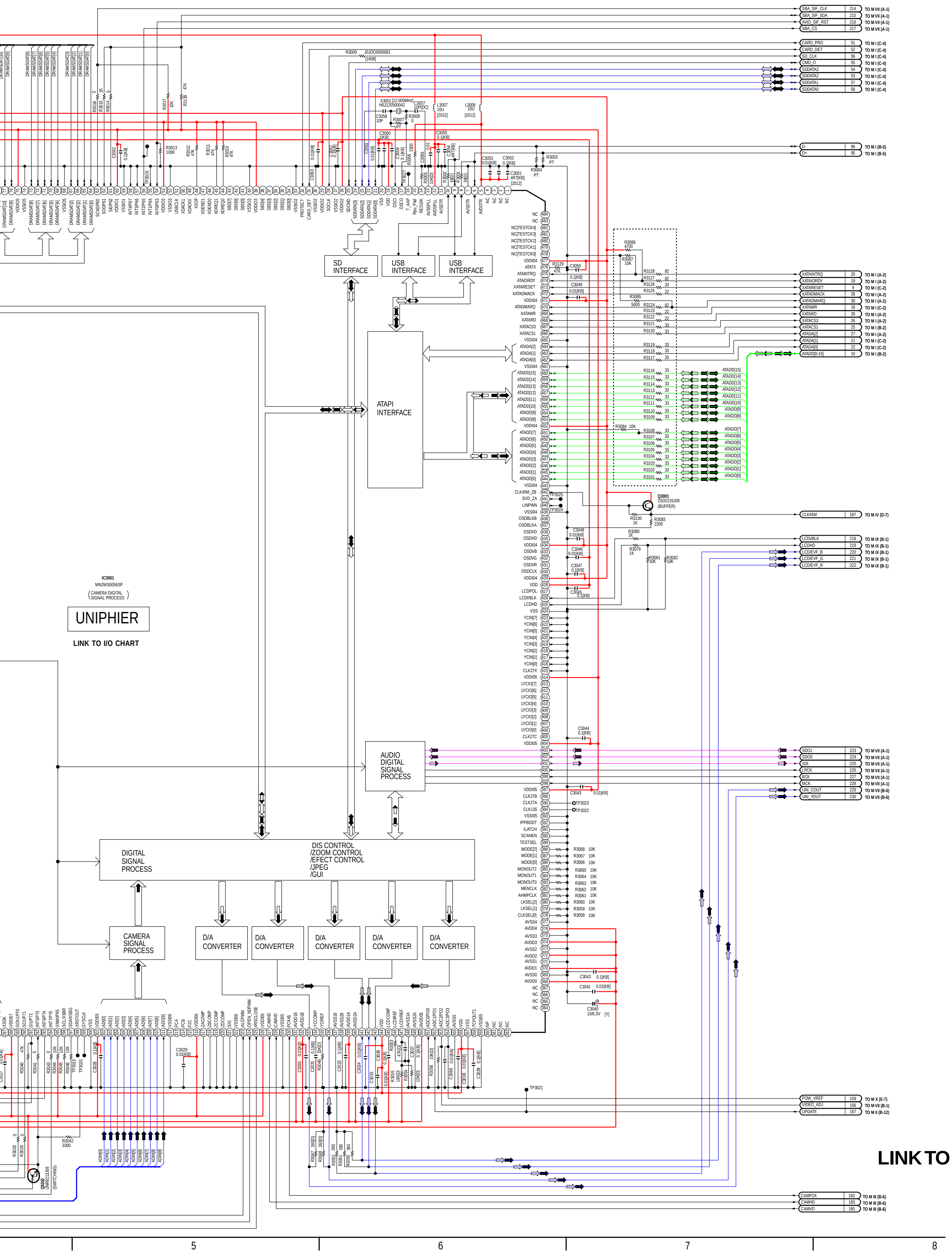
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
MEMORY INTERFACE
MICROCONTROLLER INTERFACE
MEMORY INTERFACE
IC3001
MN2WS0056SP
(CAMERA DIGITAL SIGNAL PROCESS)
UNIPHIER
LINK TO I/O CHART
DIGITAL SIGNAL PROCESS
CAMERA SIGNAL PROCESS
Q3001
UNR9213J0L
(SWITCHING)
E
D
C
B
A
1
2
3
4

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

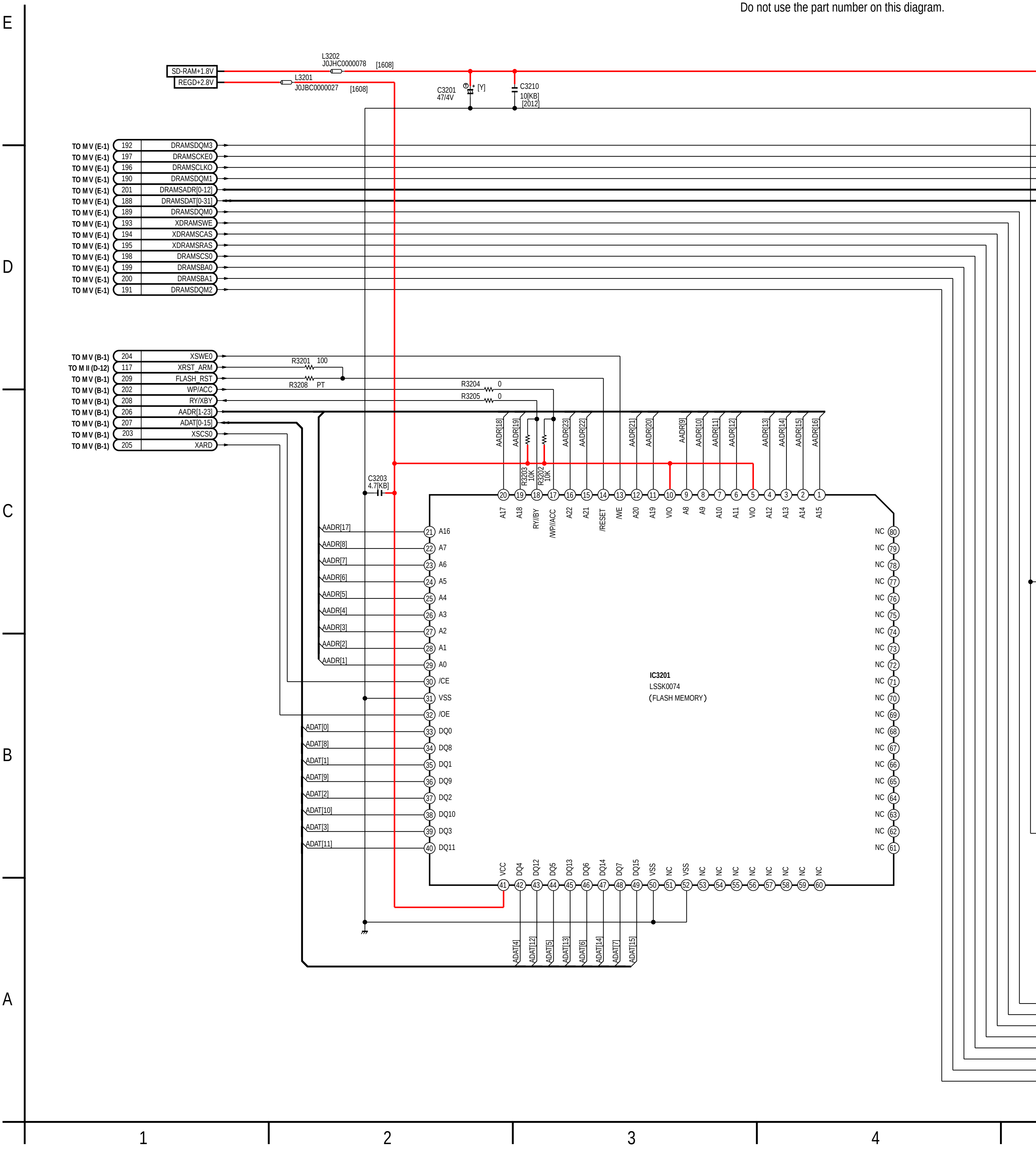

IC3001
MN2WS0056SP
(CAMERA DIGITAL SIGNAL PROCESS)
UNIPHIER
LINK TO I/O CHART
SD INTERFACE
USB INTERFACE
USB INTERFACE
ATAPI INTERFACE
AUDIO DIGITAL SIGNAL PROCESS
DIGITAL SIGNAL PROCESS
DIS CONTROL /ZOOM CONTROL /EFECT CONTROL /JPEG /GUI
CAMERA SIGNAL PROCESS
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
D/A CONVERTER
X3001 [12.000MHz] H0J120500042
Q3001 2SD2216J08 (BUFFER)
Q3002 UNR9213J0L (SWITCHING)
SBA_SIF_CLK 214 TO M VII (A-1)
SBA_SIF_SDA 215 TO M VII (A-1)
AVIO_SIF_RST 216 TO M VII (A-1)
SBA_CS 217 TO M VII (A-1)
CARD_PRO 51 TO M I (C-4)
CARD_DET 52 TO M I (C-4)
SD_CLK 56 TO M I (C-4)
CMD_O 55 TO M I (C-4)
SDDATA3 54 TO M I (C-4)
SDDATA2 53 TO M I (C-4)
SDDATA1 57 TO M I (C-4)
SDDATA0 58 TO M I (C-4)
D- 96 TO M I (B-5)
D+ 95 TO M I (B-5)
XATAINTRQ 20 TO M I (A-2)
XATAIORDY 19 TO M I (A-2)
XATARESET 9 TO M I (C-2)
XATADMACK 28 TO M I (A-2)
XATADMARQ 30 TO M I (A-2)
XATAWR 18 TO M I (C-2)
XATARD 29 TO M I (A-2)
XATACS3 26 TO M I (A-2)
XATACS1 25 TO M I (B-2)
ATADA[2] 27 TO M I (A-2)
ATADA[1] 21 TO M I (C-2)
ATADA[0] 22 TO M I (C-2)
ATADD[0-15] 10 TO M I (B-2)
CLK45M 187 TO M IV (D-7)
LCDVBLK 218 TO M IX (B-1)
LCDHD 219 TO M IX (B-1)
LCD/EVF_B 220 TO M IX (B-1)
LCD/EVF_G 221 TO M IX (B-1)
LCD/EVF_R 222 TO M IX (B-1)
SDO1 223 TO M VII (A-1)
SDO0 224 TO M VII (A-1)
SDI 225 TO M VII (A-1)
LRCK 226 TO M VII (A-1)
BCK 227 TO M VII (A-1)
MCK 228 TO M VII (A-1)
UNI_COUT 229 TO M VII (B-6)
UNI_YOUT 230 TO M VII (B-6)
POW_VREF 159 TO M X (E-7)
VIDEO_ADJ 156 TO M VII (B-1)
UPDATE 167 TO M II (B-12)
CAMFCK 182 TO M III (B-6)
CAMHD 183 TO M III (B-6)
CAMVD 165 TO M III (B-6)
5
6
7
8

LINK TO VOLTAGE CHART

LSJB8314
MAIN V SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN VI SCHEMATIC DIAGRAM

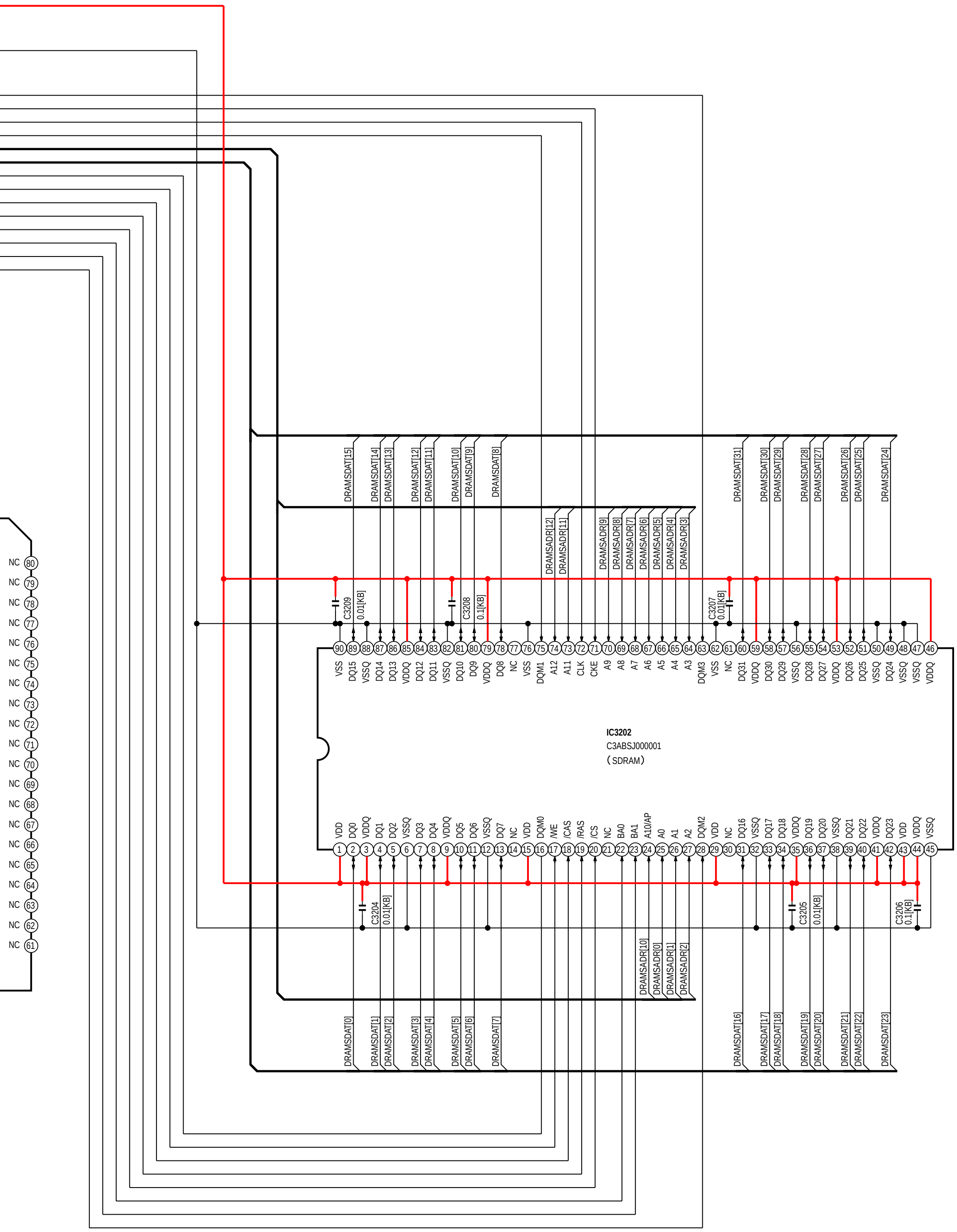
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


E
D
C
B
A
1
2
3
4
SD-RAM+1.8V
REGD+2.8V
L3202
J0JHC0000078
[1608]
L3201
J0JBC0000027
[1608]
C3201
47/4V
[Y]
C3210
10[KB]
[2012]
TO M V (E-1) 192 DRAMSDQM3
TO M V (E-1) 197 DRAMSCKE0
TO M V (E-1) 196 DRAMSCLKO
TO M V (E-1) 190 DRAMSDQM1
TO M V (E-1) 201 DRAMSADR[0-12]
TO M V (E-1) 188 DRAMSDAT[0-31]
TO M V (E-1) 189 DRAMSDQM0
TO M V (E-1) 193 XDRAMSWE
TO M V (E-1) 194 XDRAMSCAS
TO M V (E-1) 195 XDRAMSRAS
TO M V (E-1) 198 DRAMSCS0
TO M V (E-1) 199 DRAMSBA0
TO M V (E-1) 200 DRAMSBA1
TO M V (E-1) 191 DRAMSDQM2
TO M V (B-1) 204 XSWE0
TO M II (D-12) 117 XRST_ARM
TO M V (B-1) 209 FLASH_RST
TO M V (B-1) 202 WP/ACC
TO M V (B-1) 208 RY/XBY
TO M V (B-1) 206 AADR[1-23]
TO M V (B-1) 207 ADAT[0-15]
TO M V (B-1) 203 XSCS0
TO M V (B-1) 205 XARD
R3201 100
R3208 PT
R3204 0
R3205 0
R3203 10K
R3202 10K
C3203
4.7[KB]
AADR[18]
AADR[19]
AADR[23]
AADR[22]
AADR[21]
AADR[20]
AADR[9]
AADR[10]
AADR[11]
AADR[12]
AADR[13]
AADR[14]
AADR[15]
AADR[16]
20 A17
19 A18
18 RY//BY
17 /WP//ACC
16 A22
15 A21
14 /RESET
13 /WE
12 A20
11 A19
10 VIO
9 A8
8 A9
7 A10
6 A11
5 VIO
4 A12
3 A13
2 A14
1 A15
AADR[17]
AADR[8]
AADR[7]
AADR[6]
AADR[5]
AADR[4]
AADR[3]
AADR[2]
AADR[1]
21 A16
22 A7
23 A6
24 A5
25 A4
26 A3
27 A2
28 A1
29 A0
30 /CE
31 VSS
32 /OE
ADAT[0]
ADAT[8]
ADAT[1]
ADAT[9]
ADAT[2]
ADAT[10]
ADAT[3]
ADAT[11]
33 DQ0
34 DQ8
35 DQ1
36 DQ9
37 DQ2
38 DQ10
39 DQ3
40 DQ11
IC3201
LSSK0074
(FLASH MEMORY)
NC 80
NC 79
NC 78
NC 77
NC 76
NC 75
NC 74
NC 73
NC 72
NC 71
NC 70
NC 69
NC 68
NC 67
NC 66
NC 65
NC 64
NC 63
NC 62
NC 61
41 VCC
42 DQ4
43 DQ12
44 DQ5
45 DQ13
46 DQ6
47 DQ14
48 DQ7
49 DQ15
50 VSS
51 NC
52 VSS
53 NC
54 NC
55 NC
56 NC
57 NC
58 NC
59 NC
60 NC
ADAT[4]
ADAT[12]
ADAT[5]
ADAT[13]
ADAT[6]
ADAT[14]
ADAT[7]
ADAT[15]

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



IC3202
C3ABSJ000001
(SDRAM)
C3209
0.01[KB]
C3208
0.1[KB]
C3207
0.01[KB]
C3204
0.01[KB]
C3205
0.01[KB]
C3206
0.1[KB]
DRAMSDAT[0]–DRAMSDAT[31]
DRAMSADR[0]–DRAMSADR[12]
VDD
VSS
VDDQ
VSSQ
DQM0
DQM1
DQM2
DQM3
CLK
CKE
/WE
/CAS
/RAS
/CS
BA0
BA1
A10/AP
NC

4 5 6 7

LINK TO VOLTAGE CHART

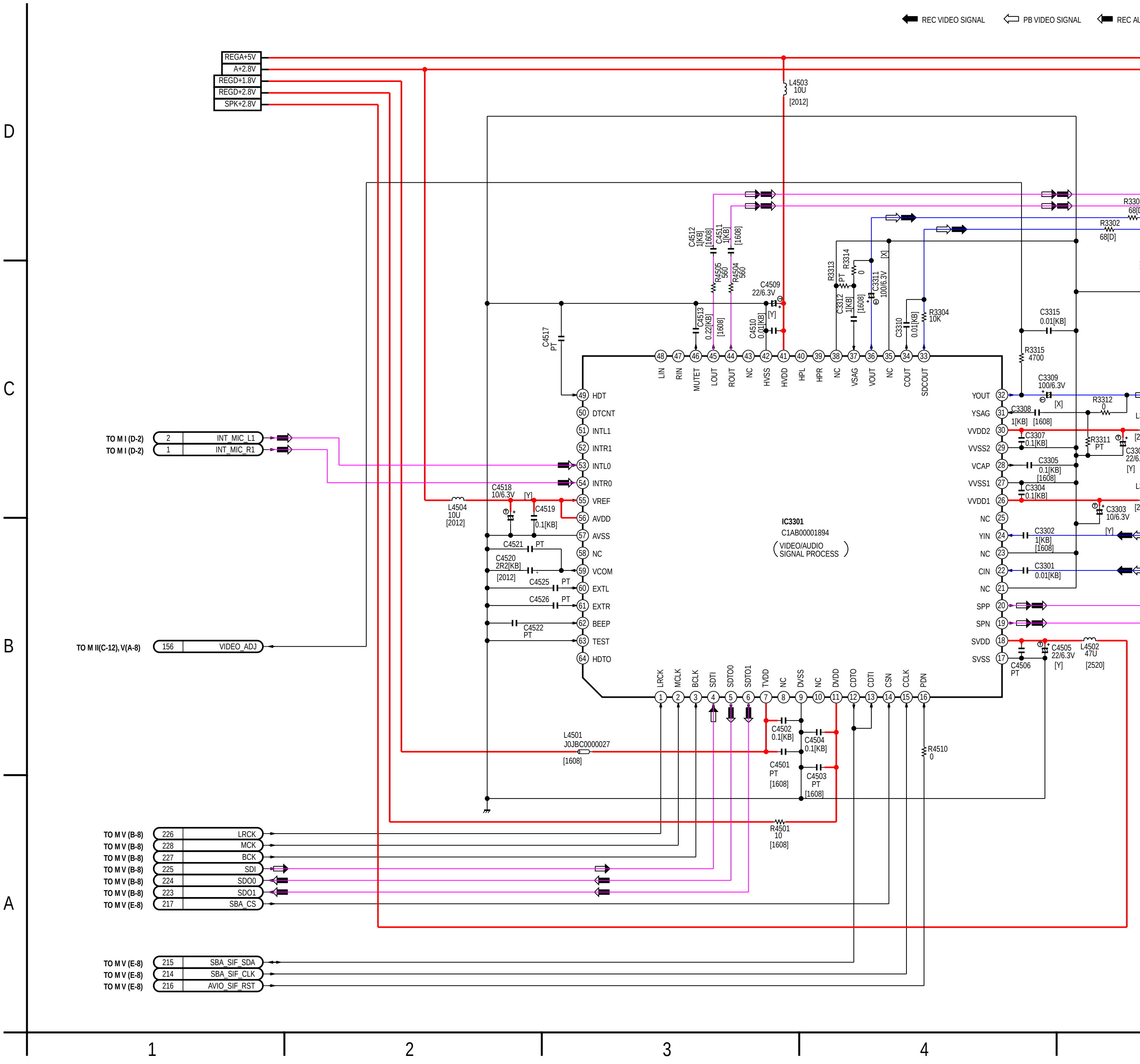
LSJB8314

MAIN VI SCHEMATIC DIAGRAM

VDR-D100PL/VDR-D200PL

MAIN VII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AU
D
C
B
A
1
2
3
4
REGA+5V
A+2.8V
REGD+1.8V
REGD+2.8V
SPK+2.8V
L4503
10U
[2012]
TO M I (D-2) 2 INT_MIC_L1
TO M I (D-2) 1 INT_MIC_R1
TO M II(C-12), V(A-8) 156 VIDEO_ADJ
TO M V (B-8) 226 LRCK
TO M V (B-8) 228 MCK
TO M V (B-8) 227 BCK
TO M V (B-8) 225 SDI
TO M V (B-8) 224 SDO0
TO M V (B-8) 223 SDO1
TO M V (E-8) 217 SBA_CS
TO M V (E-8) 215 SBA_SIF_SDA
TO M V (E-8) 214 SBA_SIF_CLK
TO M V (E-8) 216 AVIO_SIF_RST
IC3301
C1AB00001894
(VIDEO/AUDIO SIGNAL PROCESS)
LIN
RIN
MUTET
LOUT
ROUT
NC
HVSS
HVDD
HPL
HPR
NC
VSAG
VOUT
NC
COUT
SDCOUT
HDT
DTCNT
INTL1
INTR1
INTL0
INTR0
VREF
AVDD
AVSS
NC
VCOM
EXTL
EXTR
BEEP
TEST
HDTO
LRCK
MCLK
BCLK
SDTI
SDTO0
SDTO1
TVDD
NC
DVSS
NC
DVDD
CDTO
CDTI
CSN
CCLK
PDN
YOUT
YSAG
VVDD2
VVSS2
VCAP
VVSS1
VVDD1
NC
YIN
NC
CIN
NC
SPP
SPN
SVDD
SVSS
C4512 1[KB] [1608]
C4511 1[KB] [1608]
R4505 560
R4504 560
C4509 22/6.3V [Y]
C4513 0.22[KB]
[1608]
C4510 0.01[KB]
C4517 PT
R3313 PT
R3314 0
C3312 1[KB] [1608]
C3311 100/6.3V
[X]
C3310 0.01[KB]
R3304 10K
C3315 0.01[KB]
R3315 4700
C3309 100/6.3V [X]
R3312 0
R3301 68[D]
R3302 68[D]
C3308 1[KB] [1608]
C3307 0.1[KB]
R3311 PT
C3305 0.1[KB] [1608]
C3304 0.1[KB]
C3303 10/6.3V [Y]
C3302 1[KB] [1608]
C3301 0.01[KB]
C4505 22/6.3V [Y]
L4502 47U [2520]
C4506 PT
C4518 10/6.3V [Y]
L4504 10U [2012]
C4519 0.1[KB]
C4521 PT
C4520 2R2[KB] [2012]
C4525 PT
C4526 PT
C4522 PT
L4501 J0JBC0000027 [1608]
C4502 0.1[KB]
C4504 0.1[KB]
C4501 PT [1608]
C4503 PT [1608]
R4510 0
R4501 10 [1608]

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
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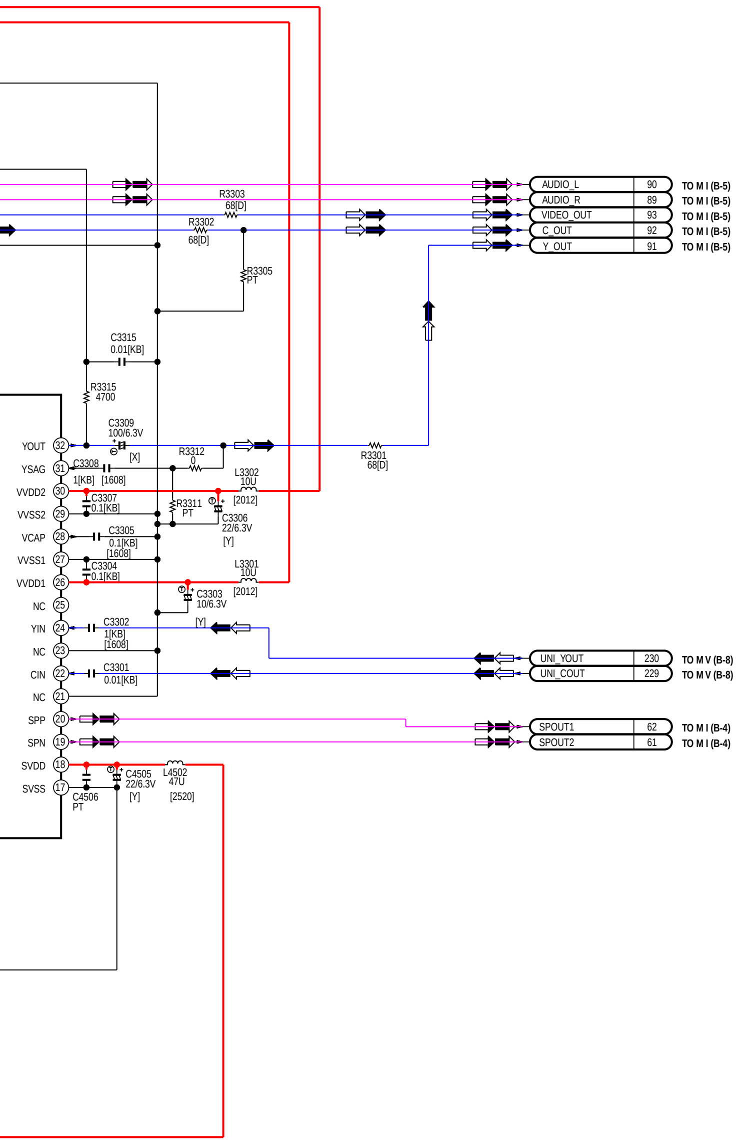
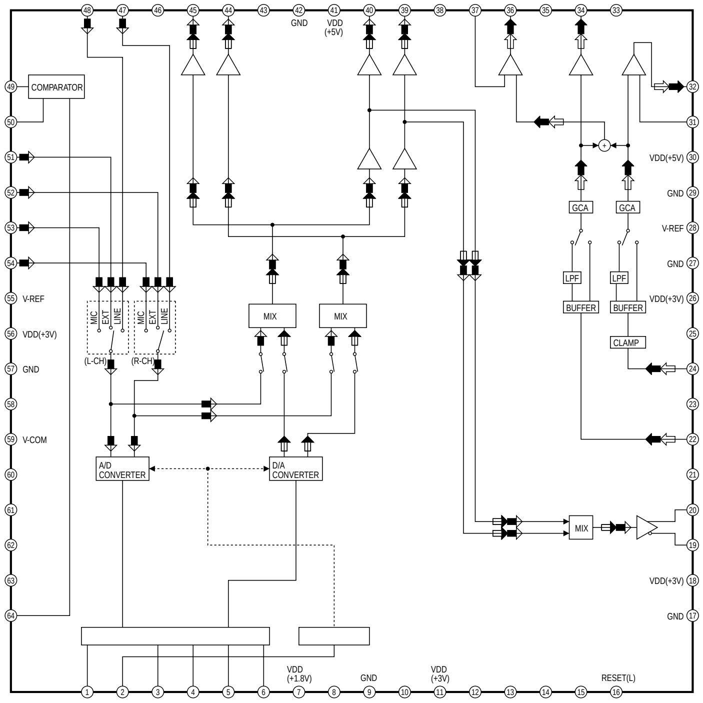
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

D SIGNAL ⇦ PB VIDEO SIGNAL ◀ REC AUDIO SIGNAL ⇦ PB AUDIO SIGNAL



R3303
68[D]
R3302
68[D]
R3305
PT
AUDIO_L 90 TO M I (B-5)
AUDIO_R 89 TO M I (B-5)
VIDEO_OUT 93 TO M I (B-5)
C_OUT 92 TO M I (B-5)
Y_OUT 91 TO M I (B-5)
C3315
0.01[KB]
R3315
4700
C3309
100/6.3V
[X]
R3312
0
R3301
68[D]
C3308
1[KB] [1608]
L3302
10U
[2012]
R3311
PT
C3307
0.1[KB]
C3306
22/6.3V
[Y]
C3305
0.1[KB]
[1608]
C3304
0.1[KB]
L3301
10U
[2012]
C3303
10/6.3V
[Y]
C3302
1[KB]
[1608]
C3301
0.01[KB]
UNI_YOUT 230 TO M V (B-8)
UNI_COUT 229 TO M V (B-8)
SPOUT1 62 TO M I (B-4)
SPOUT2 61 TO M I (B-4)
C4505
22/6.3V
[Y]
L4502
47U
[2520]
C4506
PT
YOUT 32
YSAG 31
VVDD2 30
VVSS2 29
VCAP 28
VVSS1 27
VVDD1 26
NC 25
YIN 24
NC 23
CIN 22
NC 21
SPP 20
SPN 19
SVDD 18
SVSS 17

IC3301 IC- DETAIL BLOCK DIAGRAM



48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33
GND
VDD (+5V)
COMPARATOR
49 50 51 52 53 54
55 V-REF
56 VDD(+3V)
57 GND
58
59 V-COM
60 61 62 63 64
MIC EXT LINE
MIC EXT LINE
(L-CH)
(R-CH)
MIX
MIX
A/D CONVERTER
D/A CONVERTER
GCA
GCA
LPF
LPF
BUFFER
BUFFER
CLAMP
MIX
32
31
VDD(+5V) 30
GND 29
V-REF 28
GND 27
VDD(+3V) 26
25 24 23 22 21 20 19
VDD(+3V) 18
GND 17
1 2 3 4 5 6
VDD (+1.8V) 7
8
GND 9
10
VDD (+3V) 11
12 13 14 15
RESET(L) 16

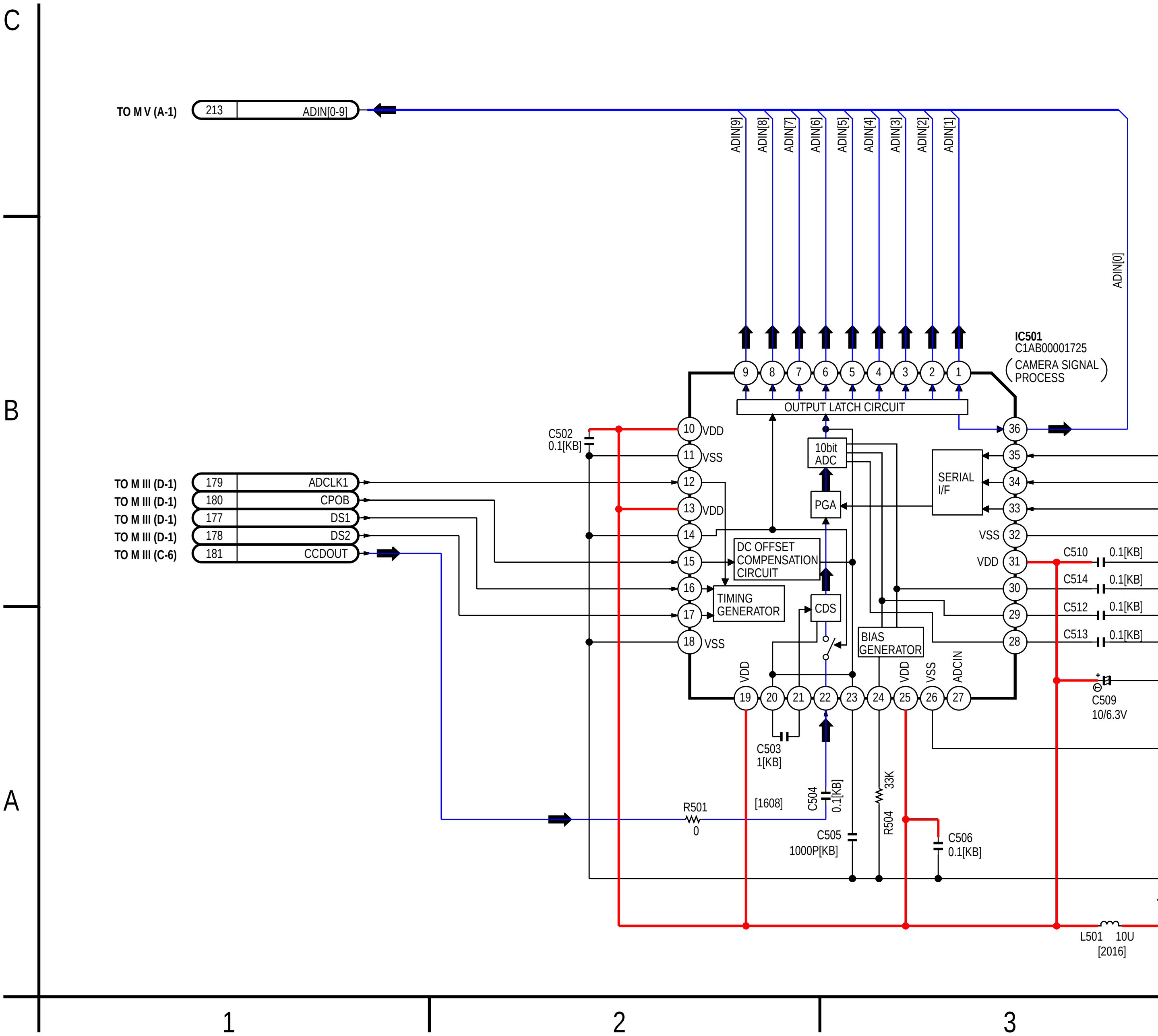
5

6

LINK TO VOLTAGE CHART
LSJB8314
MAIN VII SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN VIII SCHEMATIC DIAGRAM

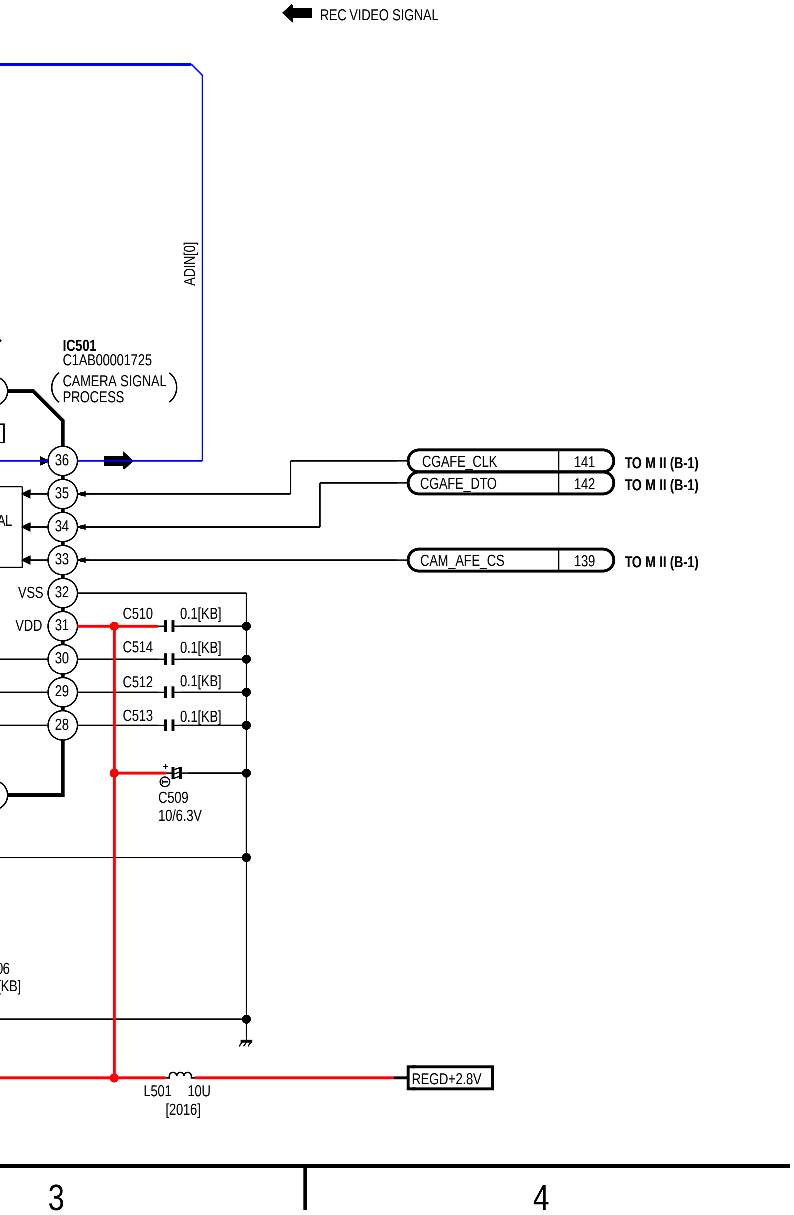
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


C
B
A
1
2
3
TO M V (A-1)
213
ADIN[0-9]
ADIN[9]
ADIN[8]
ADIN[7]
ADIN[6]
ADIN[5]
ADIN[4]
ADIN[3]
ADIN[2]
ADIN[1]
ADIN[0]
IC501
C1AB00001725
(CAMERA SIGNAL PROCESS)
OUTPUT LATCH CIRCUIT
10bit ADC
PGA
SERIAL I/F
DC OFFSET COMPENSATION CIRCUIT
TIMING GENERATOR
CDS
BIAS GENERATOR
VDD
VSS
VDD
VSS
VSS
VDD
VDD
VSS
ADCIN
VDD
VSS
C502
0.1[KB]
TO M III (D-1)
179
ADCLK1
TO M III (D-1)
180
CPOB
TO M III (D-1)
177
DS1
TO M III (D-1)
178
DS2
TO M III (C-6)
181
CCDOUT
C510
0.1[KB]
C514
0.1[KB]
C512
0.1[KB]
C513
0.1[KB]
C509
10/6.3V
C503
1[KB]
[1608]
C504
0.1[KB]
R501
0
C505
1000P[KB]
R504
33K
C506
0.1[KB]
L501
10U
[2016]

er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

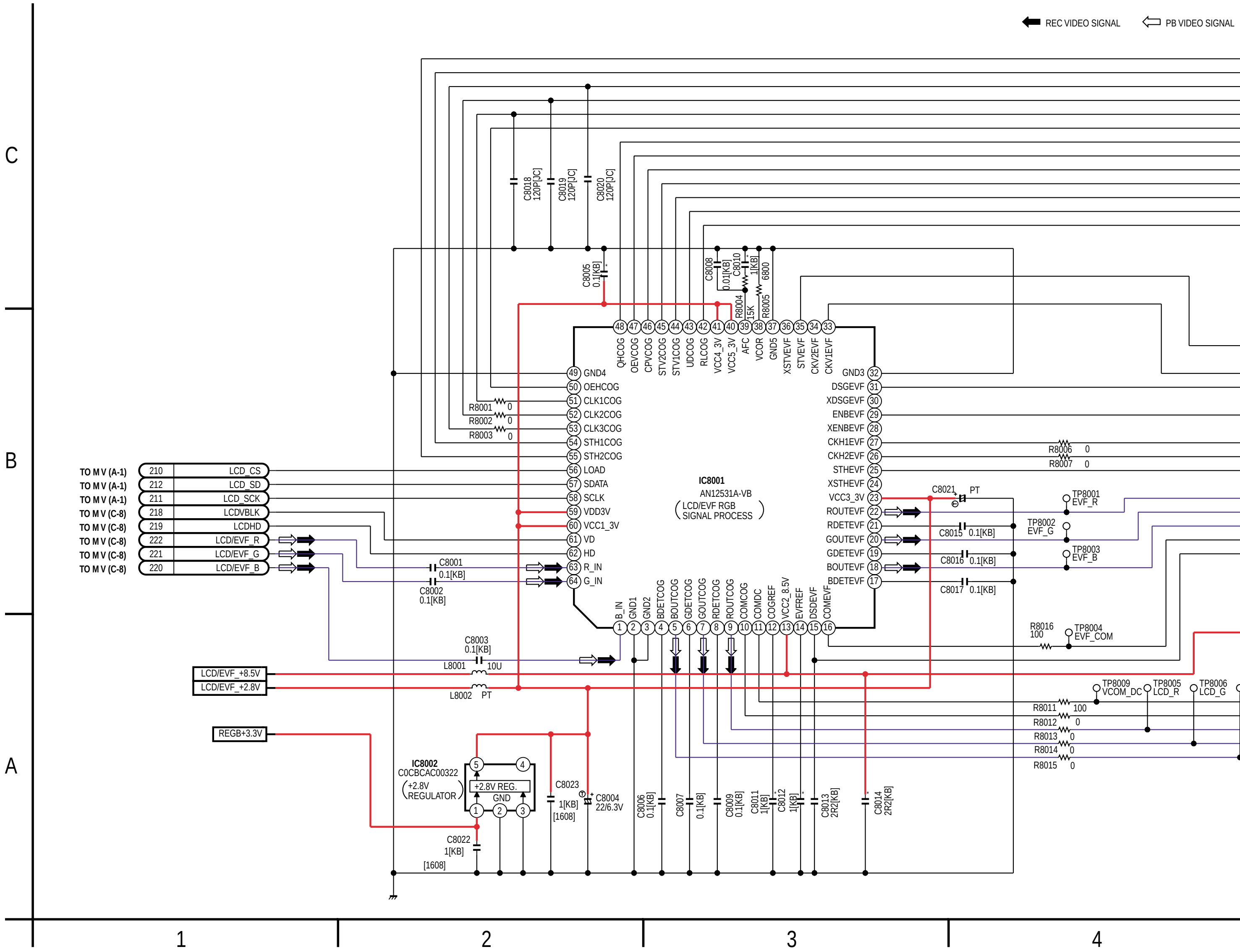

REC VIDEO SIGNAL
ADIN[0]
IC501
C1AB00001725
CAMERA SIGNAL PROCESS
36
35
34
33
VSS 32
VDD 31
30
29
28
AL
CGAFE_CLK 141
CGAFE_DTO 142
CAM_AFE_CS 139
TO M II (B-1)
TO M II (B-1)
TO M II (B-1)
C510 0.1[KB]
C514 0.1[KB]
C512 0.1[KB]
C513 0.1[KB]
C509
10/6.3V
06
KB]
L501 10U
[2016]
REGD+2.8V
3
4

LINK TO VOLTAGE CHART
LSJB8314
MAIN VIII SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN IX SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

MAIN IX

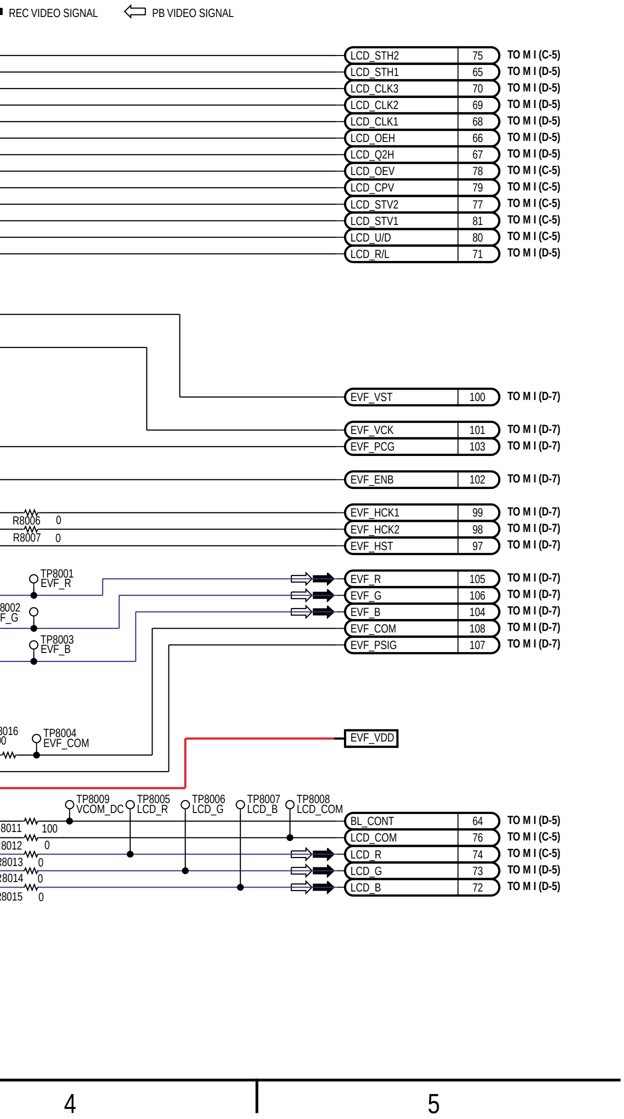


REC VIDEO SIGNAL
PB VIDEO SIGNAL
C
B
A
1
2
3
4
C8018 120P[JC]
C8019 120P[JC]
C8020 120P[JC]
C8005 0.1[KB]
C8008 0.01[KB]
C8010 1[KB]
R8004 15K
R8005 6800
QHCOG
OEVCOG
CPVCOG
STV2COG
STV1COG
UDCOG
RLCOG
VCC4_3V
VCC5_3V
AFC
VCOR
GND5
XSTVEVF
STVEVF
CKV2EVF
CKV1EVF
49 GND4
50 OEHCOG
51 CLK1COG
52 CLK2COG
53 CLK3COG
54 STH1COG
55 STH2COG
56 LOAD
57 SDATA
58 SCLK
59 VDD3V
60 VCC1_3V
61 VD
62 HD
63 R_IN
64 G_IN
GND3 32
DSGEVF 31
XDSGEVF 30
ENBEVF 29
XENBEVF 28
CKH1EVF 27
CKH2EVF 26
STHEVF 25
XSTHEVF 24
VCC3_3V 23
ROUTEVF 22
RDETEVF 21
GOUTEVF 20
GDETEVF 19
BOUTEVF 18
BDETEVF 17
B_IN
GND1
GND2
BDETCOG
BOUTCOG
GDETCOG
GOUTCOG
RDETCOG
ROUTCOG
COMCOG
COMDC
COGREF
VCC2_8.5V
EVFREF
DSDEVF
COMEVF
IC8001
AN12531A-VB
LCD/EVF RGB
SIGNAL PROCESS
R8001 0
R8002 0
R8003 0
R8006 0
R8007 0
TO M V (A-1) 210 LCD_CS
TO M V (A-1) 212 LCD_SD
TO M V (A-1) 211 LCD_SCK
TO M V (C-8) 218 LCDVBLK
TO M V (C-8) 219 LCDHD
TO M V (C-8) 222 LCD/EVF_R
TO M V (C-8) 221 LCD/EVF_G
TO M V (C-8) 220 LCD/EVF_B
C8001 0.1[KB]
C8002 0.1[KB]
C8003 0.1[KB]
L8001 10U
L8002 PT
LCD/EVF_+8.5V
LCD/EVF_+2.8V
REGB+3.3V
C8021 PT
C8015 0.1[KB]
C8016 0.1[KB]
C8017 0.1[KB]
TP8001 EVF_R
TP8002 EVF_G
TP8003 EVF_B
R8016 100
TP8004 EVF_COM
TP8009 VCOM_DC
TP8005 LCD_R
TP8006 LCD_G
R8011 100
R8012 0
R8013 0
R8014 0
R8015 0
IC8002
C0CBCAC00322
+2.8V REGULATOR
+2.8V REG.
GND
C8022 1[KB] [1608]
C8023 1[KB] [1608]
C8004 22/6.3V
C8006 0.1[KB]
C8007 0.1[KB]
C8009 0.1[KB]
C8011 1[KB]
C8012 1[KB]
C8013 2R2[KB]
C8014 2R2[KB]

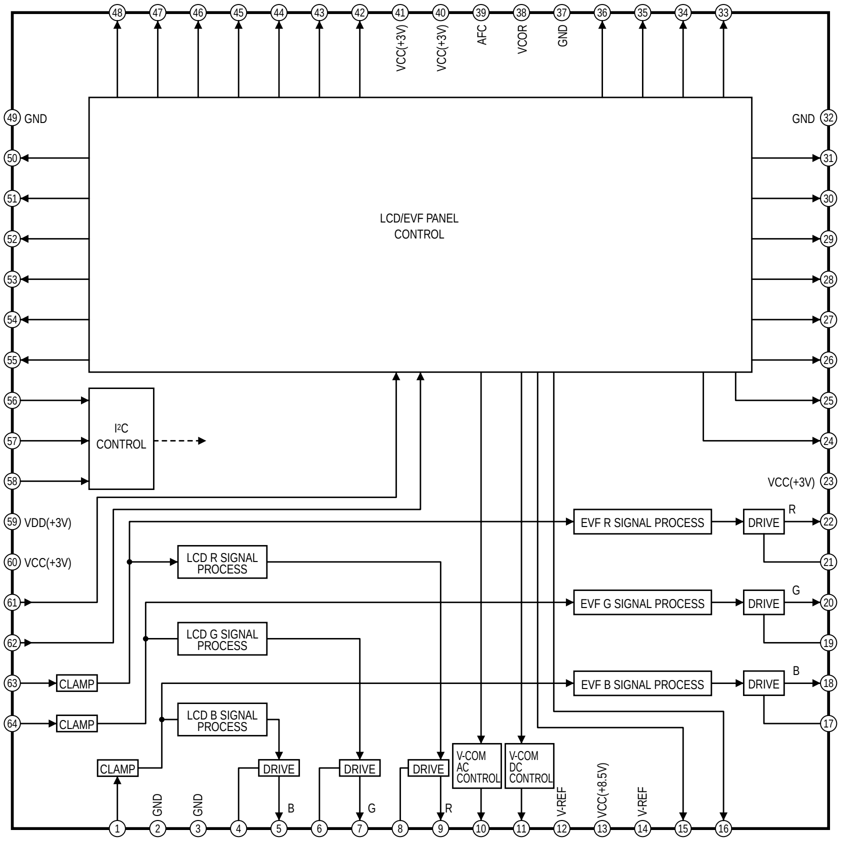
er of the parts,
ber listed in the parts list.
on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
LCD_STH2 75 TO M I (C-5)
LCD_STH1 65 TO M I (D-5)
LCD_CLK3 70 TO M I (D-5)
LCD_CLK2 69 TO M I (D-5)
LCD_CLK1 68 TO M I (D-5)
LCD_OEH 66 TO M I (D-5)
LCD_Q2H 67 TO M I (D-5)
LCD_OEV 78 TO M I (C-5)
LCD_CPV 79 TO M I (C-5)
LCD_STV2 77 TO M I (C-5)
LCD_STV1 81 TO M I (C-5)
LCD_U/D 80 TO M I (C-5)
LCD_R/L 71 TO M I (D-5)
EVF_VST 100 TO M I (D-7)
EVF_VCK 101 TO M I (D-7)
EVF_PCG 103 TO M I (D-7)
EVF_ENB 102 TO M I (D-7)
EVF_HCK1 99 TO M I (D-7)
EVF_HCK2 98 TO M I (D-7)
EVF_HST 97 TO M I (D-7)
R8006 0
R8007 0
TP8001 EVF_R
8002 F_G
TP8003 EVF_B
EVF_R 105 TO M I (D-7)
EVF_G 106 TO M I (D-7)
EVF_B 104 TO M I (D-7)
EVF_COM 108 TO M I (D-7)
EVF_PSIG 107 TO M I (D-7)
8016 0
TP8004 EVF_COM
EVF_VDD
TP8009 VCOM_DC
TP8005 LCD_R
TP8006 LCD_G
TP8007 LCD_B
TP8008 LCD_COM
8011 100
8012 0
8013 0
8014 0
8015 0
BL_CONT 64 TO M I (D-5)
LCD_COM 76 TO M I (C-5)
LCD_R 74 TO M I (C-5)
LCD_G 73 TO M I (D-5)
LCD_B 72 TO M I (D-5)
4
5

IC8001 IC- DETAIL BLOCK DIAGRAM


LCD/EVF PANEL CONTROL
I²C CONTROL
GND
VCC(+3V)
VCC(+3V)
AFC
VCOR
GND
GND
GND
VCC(+3V)
VDD(+3V)
VCC(+3V)
EVF R SIGNAL PROCESS
EVF G SIGNAL PROCESS
EVF B SIGNAL PROCESS
DRIVE
R
G
B
LCD R SIGNAL PROCESS
LCD G SIGNAL PROCESS
LCD B SIGNAL PROCESS
CLAMP
CLAMP
CLAMP
DRIVE
DRIVE
DRIVE
V-COM AC CONTROL
V-COM DC CONTROL
GND
GND
V-REF
VCC(+8.5V)
V-REF
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

LINK TO VOLTAGE CHART

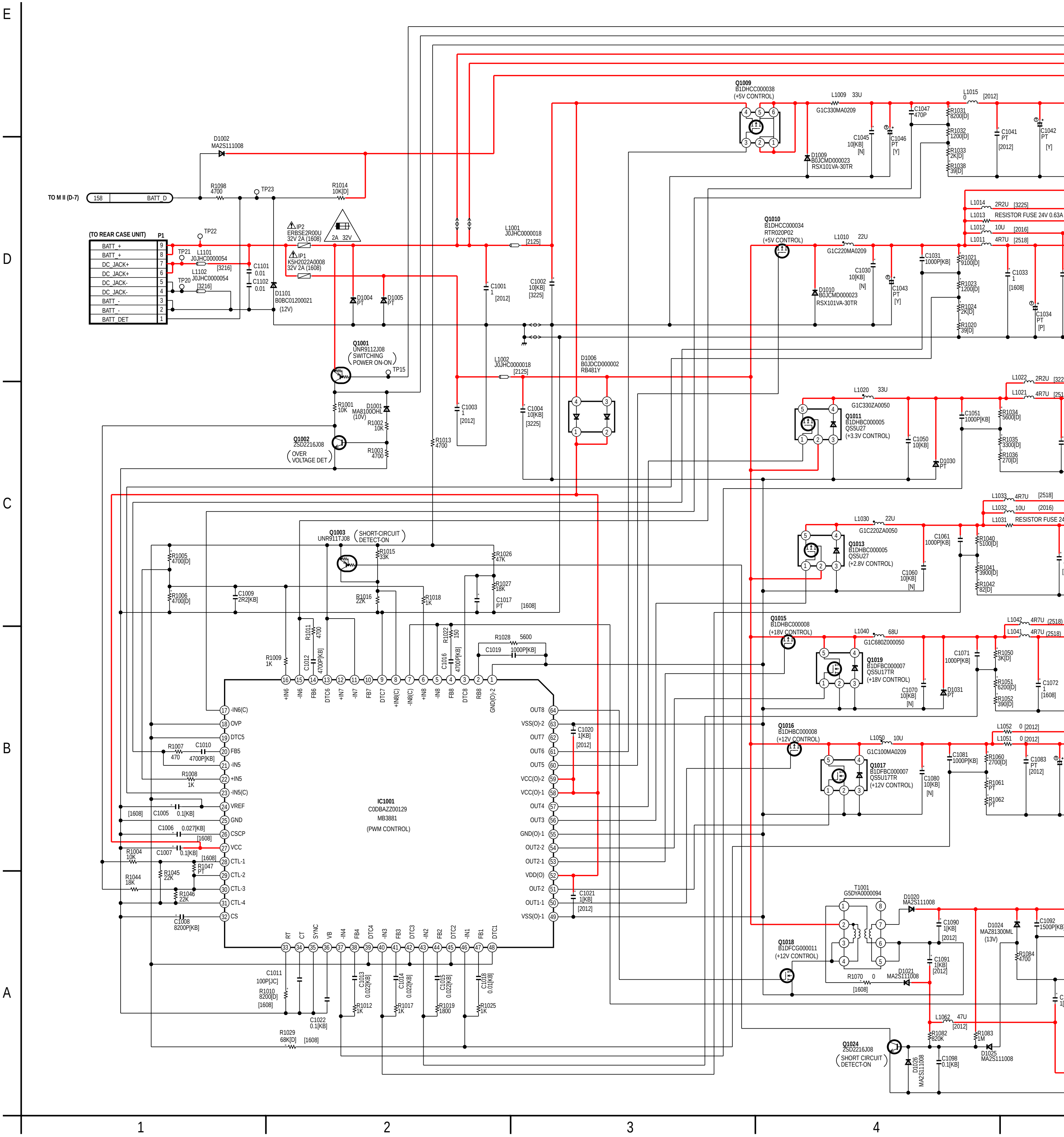
LSJB8314
MAIN IX SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

MAIN X SCHEMATIC DIAGRAM

2A 32V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠
SPECIAL CHARACTERISTICS IMPORTANT FO
WHEN REPLACING ANY OF THESE COMPONE
USE ONLY THE SPECIFIED PARTS.

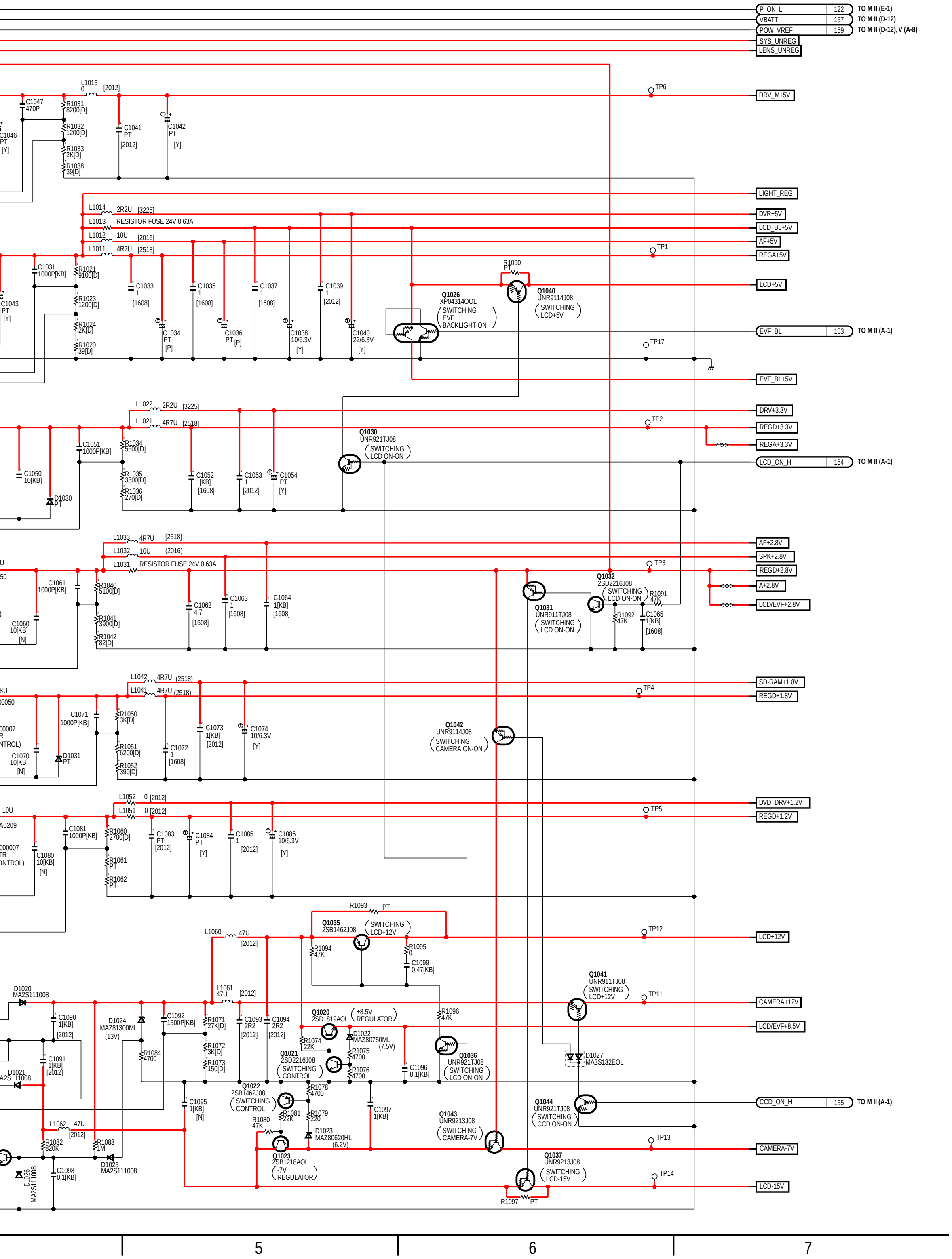

E
D
C
B
A
1
2
3
4
TO M II (D-7)
158 BATT_D
(TO REAR CASE UNIT) P1
BATT_+
BATT_+
DC_JACK+
DC_JACK+
DC_JACK-
DC_JACK-
BATT_-
BATT_-
BATT_DET
D1002 MA2S111008
R1098 4700
TP23
R1014 10K[D]
TP22
TP21
TP20
L1101 J0JHC0000054 [3216]
L1102 J0JHC0000054 [3216]
C1101 0.01
C1102 0.01
IP2 ERBSE2R00U 32V 2A (1608)
IP1 K5H2022A0008 32V 2A (1608)
2A 32V
D1101 B0BC01200021 (12V)
D1004 PT
D1005 PT
L1001 J0JHC0000018 [2125]
C1001 1 [2012]
C1002 10[KB] [3225]
Q1001 UNR9112J08 (SWITCHING POWER ON-ON)
TP15
L1002 J0JHC0000018 [2125]
D1006 B0JDCD000002 RB481Y
C1003 1 [2012]
C1004 10[KB] [3225]
R1001 10K
D1001 MA8100OHL (10V)
R1002 10K
R1003 4700
Q1002 2SD2216J08 (OVER VOLTAGE DET)
R1013 4700
Q1003 UNR911TJ08 (SHORT-CIRCUIT DETECT-ON)
R1015 33K
R1026 47K
R1027 18K
C1017 PT [1608]
R1005 4700[D]
R1006 4700[D]
C1009 2R2[KB]
R1016 22K
R1018 1K
R1011 4700
C1012 4700P[KB]
R1022 150
C1016 4700P[KB]
R1028 5600
C1019 1000P[KB]
R1009 1K
IC1001 C0DBAZZ00129 MB3881 (PWM CONTROL)
R1007 470
C1010 4700P[KB]
R1008 1K
C1005 0.1[KB] [1608]
C1006 0.027[KB] [1608]
C1007 0.1[KB] [1608]
R1004 10K
R1044 18K
R1045 22K
R1047 PT
R1046 22K
C1008 8200P[KB]
C1020 1[KB] [2012]
C1021 1[KB] [2012]
C1011 100P[JC]
R1010 8200[D] [1608]
C1022 0.1[KB]
R1029 68K[D] [1608]
C1013 0.022[KB]
R1012 1K
C1014 0.022[KB]
R1017 1K
C1015 0.022[KB]
R1019 1800
C1018 0.01[KB]
R1025 1K
Q1009 B1DHCC000038 (+5V CONTROL)
L1009 33U G1C330MA0209
C1045 10[KB] [N]
C1046 PT [Y]
C1047 470P
D1009 B0JCMD000023 RSX101VA-30TR
L1015 0 [2012]
R1031 8200[D]
R1032 1200[D]
R1033 2K[D]
R1038 39[D]
C1041 PT [2012]
C1042 PT [Y]
L1014 2R2U [3225]
L1013 RESISTOR FUSE 24V 0.63A
L1012 10U [2016]
L1011 4R7U [2518]
Q1010 B1DHCC000034 RTR020P02 (+5V CONTROL)
L1010 22U G1C220MA0209
C1030 10[KB] [N]
C1043 PT [Y]
D1010 B0JCMD000023 RSX101VA-30TR
C1031 1000P[KB]
R1021 9100[D]
R1023 1200[D]
R1024 2K[D]
R1020 39[D]
C1033 1 [1608]
C1034 PT [P]
L1022 2R2U [322
L1021 4R7U [251
L1020 33U G1C330ZA0050
Q1011 B1DHBC000005 QS5U27 (+3.3V CONTROL)
C1050 10[KB]
D1030 PT
C1051 1000P[KB]
R1034 5600[D]
R1035 3300[D]
R1036 270[D]
L1033 4R7U [2518]
L1032 10U (2016)
L1031 RESISTOR FUSE 24
L1030 22U G1C220ZA0050
Q1013 B1DHBC000005 QS5U27 (+2.8V CONTROL)
C1060 10[KB] [N]
C1061 1000P[KB]
R1040 5100[D]
R1041 3900[D]
R1042 82[D]
Q1015 B1DHBC000008 (+18V CONTROL)
L1040 68U G1C680Z000050
Q1019 B1DFBC000007 QS5U17TR (+18V CONTROL)
C1070 10[KB] [N]
D1031 PT
C1071 1000P[KB]
L1042 4R7U (2518)
L1041 4R7U (2518)
R1050 3K[D]
R1051 6200[D]
R1052 390[D]
C1072 1 [1608]
Q1016 B1DHBC000008 (+12V CONTROL)
L1050 10U G1C100MA0209
Q1017 B1DFBC000007 QS5U17TR (+12V CONTROL)
C1080 10[KB] [N]
C1081 1000P[KB]
L1052 0 [2012]
L1051 0 [2012]
R1060 2700[D]
R1061 PT
R1062 PT
C1083 PT [2012]
T1001 G5DYA0000094
D1020 MA2S111008
C1090 1[KB] [2012]
C1091 1[KB] [2012]
D1024 MAZ81300ML (13V)
C1092 1500P[KB]
R1084 4700
Q1018 B1DFCG000011 (+12V CONTROL)
R1070 0 [1608]
D1021 MA2S111008
L1062 47U [2012]
R1082 820K
R1083 1M
D1025 MA2S111008
Q1024 2SD2216J08 (SHORT CIRCUIT DETECT-ON)
D1026 MA2S111008
C1098 0.1[KB]

SAFETY NOTICE:
TS IDENTIFIED BY THE SIGN ⚠ HAVE
ARACTERISTICS IMPORTANT FOR SAFETY.
LACING ANY OF THESE COMPONENTS,
HE SPECIFIED PARTS.

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.



P_ON_L 122 TO M II (E-1)
VBATT 157 TO M II (D-12)
POW_VREF 159 TO M II (D-12), V (A-8)
SYS_UNREG
LENS_UNREG
DRV_M+5V
TP6
LIGHT_REG
DVR+5V
LCD_BL+5V
AF+5V
REGA+5V
TP1
LCD+5V
EVF_BL 153 TO M II (A-1)
TP17
EVF_BL+5V
DRV+3.3V
REGD+3.3V
REGA+3.3V
TP2
LCD_ON_H 154 TO M II (A-1)
AF+2.8V
SPK+2.8V
REGD+2.8V
A+2.8V
LCD/EVF+2.8V
TP3
SD-RAM+1.8V
REGD+1.8V
TP4
DVD_DRV+1.2V
REGD+1.2V
TP5
LCD+12V
TP12
CAMERA+12V
TP11
LCD/EVF+8.5V
CCD_ON_H 155 TO M II (A-1)
CAMERA-7V
TP13
LCD-15V
TP14
L1015 0 [2012]
C1047 470P
R1031 8200[D]
R1032 1200[D]
R1033 2K[D]
R1038 39[D]
C1041 PT [2012]
C1042 PT [Y]
C1046 PT [Y]
L1014 2R2U [3225]
L1013 RESISTOR FUSE 24V 0.63A
L1012 10U [2016]
L1011 4R7U [2518]
C1031 1000P[KB]
R1021 9100[D]
R1023 1200[D]
R1024 2K[D]
R1020 39[D]
C1043 PT [Y]
C1033 1 [1608]
C1035 1 [1608]
C1037 1 [1608]
C1039 1 [2012]
C1034 PT [P]
C1036 PT [P]
C1038 10/6.3V [Y]
C1040 22/6.3V [Y]
R1090 PT
Q1026 XP04314OOL (SWITCHING EVF BACKLIGHT ON)
Q1040 UNR9114J08 (SWITCHING LCD+5V)
L1022 2R2U [3225]
L1021 4R7U [2518]
C1051 1000P[KB]
R1034 5600[D]
R1035 3300[D]
R1036 270[D]
C1050 10[KB]
D1030 PT
C1052 1[KB] [1608]
C1053 1 [2012]
C1054 PT [Y]
Q1030 UNR921TJ08 (SWITCHING LCD ON-ON)
L1033 4R7U [2518]
L1032 10U (2016)
L1031 RESISTOR FUSE 24V 0.63A
C1061 1000P[KB]
R1040 5100[D]
R1041 3900[D]
R1042 82[D]
C1060 10[KB] [N]
C1062 4.7 [1608]
C1063 1 [1608]
C1064 1[KB] [1608]
Q1032 2SD2216J08 (SWITCHING LCD ON-ON)
R1091 47K
Q1031 UNR911TJ08 (SWITCHING LCD ON-ON)
R1092 47K
C1065 1[KB] [1608]
L1042 4R7U (2518)
L1041 4R7U (2518)
C1071 1000P[KB]
R1050 3K[D]
R1051 6200[D]
R1052 390[D]
C1070 10[KB] [N]
D1031 PT
C1072 1 [1608]
C1073 1[KB] [2012]
C1074 10/6.3V [Y]
Q1042 UNR9114J08 (SWITCHING CAMERA ON-ON)
L1052 0 [2012]
L1051 0 [2012]
C1081 1000P[KB]
R1060 2700[D]
R1061 PT
R1062 PT
C1080 10[KB] [N]
C1083 PT [2012]
C1084 PT [Y]
C1085 1 [2012]
C1086 10/6.3V [Y]
R1093 PT
Q1035 2SB1462J08 (SWITCHING LCD+12V)
R1094 47K
R1095 0
C1099 0.47[KB]
L1060 47U [2012]
L1061 47U [2012]
D1020 MA2S111008
C1090 1[KB] [2012]
D1024 MAZ81300ML (13V)
C1092 1500P[KB]
R1071 27K[D]
R1072 3K[D]
R1073 150[D]
C1093 2R2 [2012]
C1094 2R2 [2012]
Q1020 2SD1819AOL (+8.5V REGULATOR)
D1022 MAZ80750ML (7.5V)
R1074 22K
R1075 4700
R1076 4700
Q1021 2SD2216J08 (SWITCHING CONTROL)
R1096 47K
Q1036 UNR921TJ08 (SWITCHING LCD ON-ON)
C1096 0.1[KB]
Q1041 UNR911TJ08 (SWITCHING LCD+12V)
D1027 MA3S132EOL
C1091 1[KB] [2012]
D1021 MA2S111008
R1084 4700
C1095 1[KB] [N]
Q1022 2SB1462J08 (SWITCHING CONTROL)
R1078 4700
R1081 22K
R1079 220
R1080 47K
D1023 MAZ80620HL (6.2V)
C1097 1[KB]
Q1043 UNR9213J08 (SWITCHING CAMERA-7V)
Q1044 UNR921TJ08 (SWITCHING CCD ON-ON)
L1062 47U [2012]
R1082 820K
R1083 1M
D1025 MA2S111008
C1098 0.1[KB]
D1026 MA2S111008
Q1023 2SB1218AOL (-7V REGULATOR)
Q1037 UNR9213J08 (SWITCHING LCD-15V)
R1097 PT
5
6
7

LINK TO VOLTAGE CHART

LSJB8314

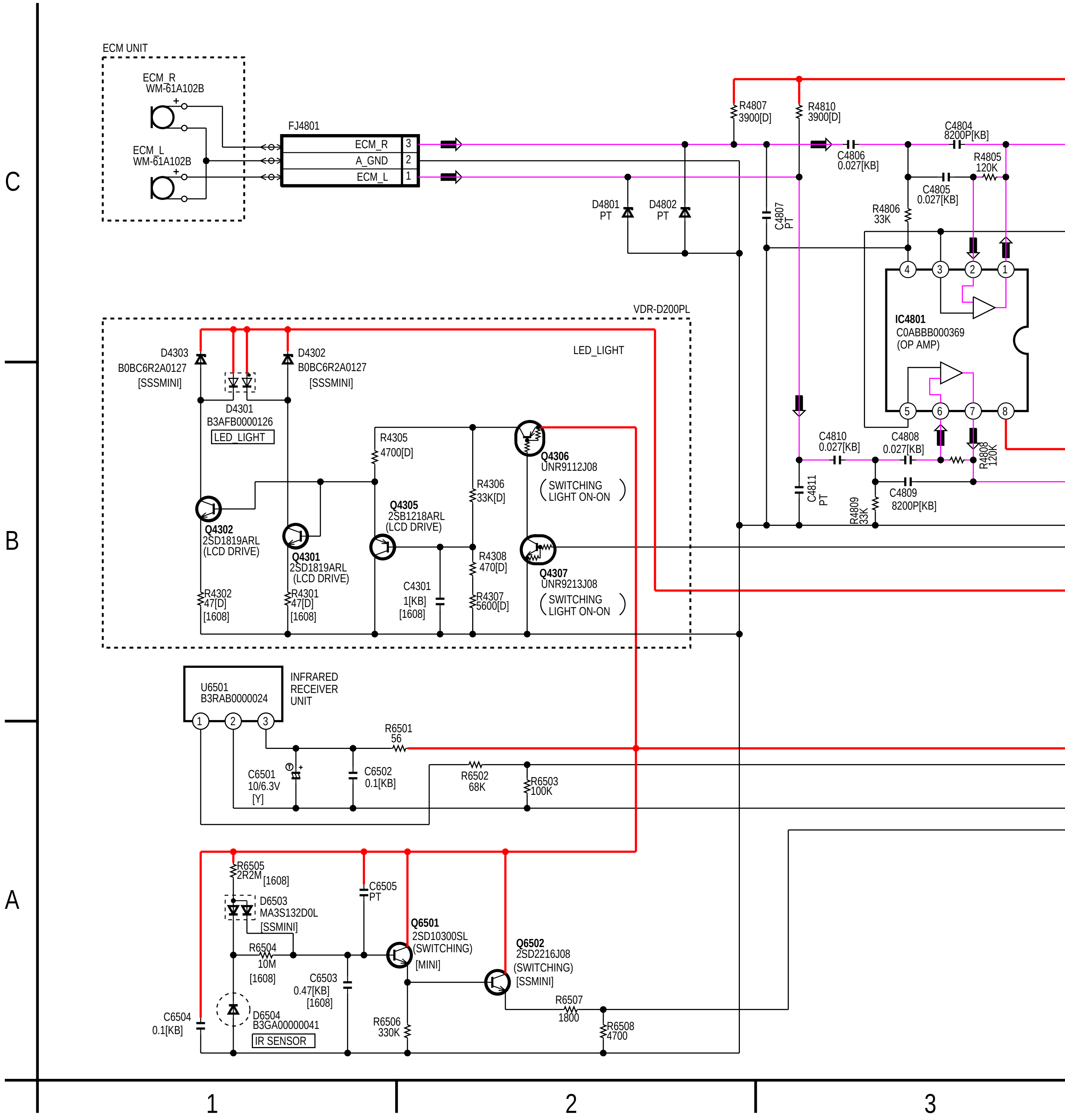
MAIN X SCHEMATIC DIAGRAM

VDR-D100PL/VDR-D200PL

12.3. FRONT SCHEMATIC DIAGRAM

FRONT SCHEMATIC DIAGRAM

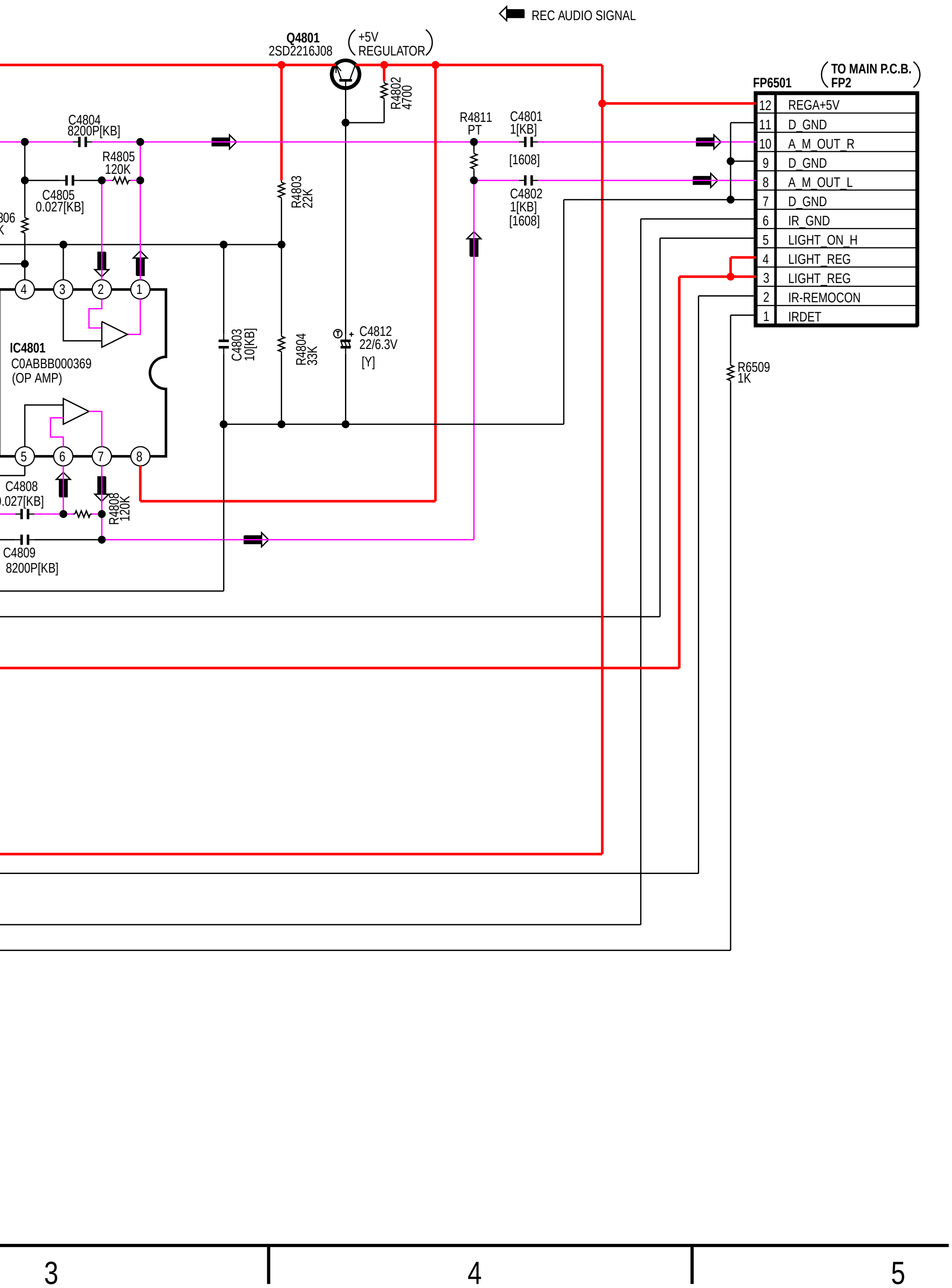
NOTE: For placing a purcl
be sure to use the
Do not use the par


C
B
A
1
2
3
ECM UNIT
ECM_R
WM-61A102B
ECM_L
WM-61A102B
FJ4801
ECM_R 3
A_GND 2
ECM_L 1
D4801
PT
D4802
PT
R4807
3900[D]
R4810
3900[D]
C4807
PT
C4806
0.027[KB]
C4804
8200P[KB]
R4805
120K
C4805
0.027[KB]
R4806
33K
IC4801
C0ABBB000369
(OP AMP)
4
3
2
1
5
6
7
8
C4810
0.027[KB]
C4808
0.027[KB]
R4808
120K
C4811
PT
R4809
33K
C4809
8200P[KB]
VDR-D200PL
LED_LIGHT
D4303
B0BC6R2A0127
[SSSMINI]
D4302
B0BC6R2A0127
[SSSMINI]
D4301
B3AFB0000126
LED_LIGHT
R4305
4700[D]
Q4306
UNR9112J08
(SWITCHING LIGHT ON-ON)
R4306
33K[D]
Q4305
2SB1218ARL
(LCD DRIVE)
Q4302
2SD1819ARL
(LCD DRIVE)
Q4301
2SD1819ARL
(LCD DRIVE)
R4308
470[D]
Q4307
UNR9213J08
(SWITCHING LIGHT ON-ON)
C4301
1[KB]
[1608]
R4307
5600[D]
R4302
47[D]
[1608]
R4301
47[D]
[1608]
U6501
B3RAB0000024
INFRARED RECEIVER UNIT
R6501
56
C6501
10/6.3V
[Y]
C6502
0.1[KB]
R6502
68K
R6503
100K
R6505
2R2M
[1608]
C6505
PT
D6503
MA3S132D0L
[SSMINI]
Q6501
2SD1030OSL
(SWITCHING)
[MINI]
R6504
10M
[1608]
C6503
0.47[KB]
[1608]
Q6502
2SD2216J08
(SWITCHING)
[SSMINI]
R6507
1800
C6504
0.1[KB]
D6504
B3GA00000041
IR SENSOR
R6506
330K
R6508
4700

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC AUDIO SIGNAL
Q4801
2SD2216J08
+5V
REGULATOR
R4802
4700
FP6501
TO MAIN P.C.B.
FP2
12 REGA+5V
11 D_GND
10 A_M_OUT_R
9 D_GND
8 A_M_OUT_L
7 D_GND
6 IR_GND
5 LIGHT_ON_H
4 LIGHT_REG
3 LIGHT_REG
2 IR-REMOCON
1 IRDET
C4804
8200P[KB]
R4805
120K
C4805
0.027[KB]
R4811
PT
C4801
1[KB]
[1608]
C4802
1[KB]
[1608]
R4803
22K
IC4801
C0ABBB000369
(OP AMP)
C4803
10[KB]
R4804
33K
C4812
22/6.3V
[Y]
R6509
1K
C4808
.027[KB]
R4808
120K
C4809
8200P[KB]
3
4
5

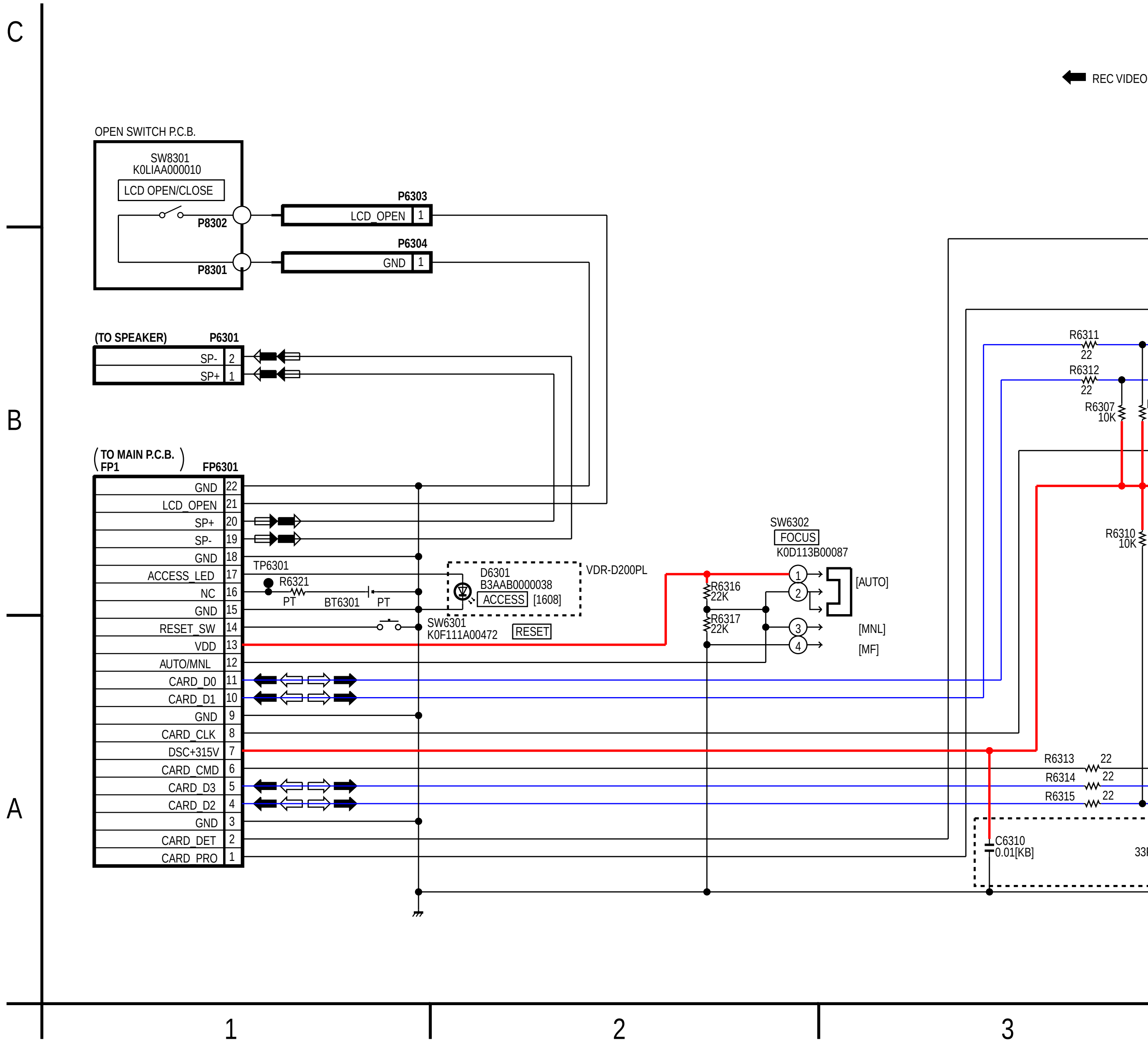
LINK TO VOLTAGE CHART

LSJB8316
FRONT SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

12.4. SIDE R SCHEMATIC DIAGRAM

SIDE R SCHEMATIC DIAGRAM

NOTE: For placing a purcl
be sure to use the
Do not use the par



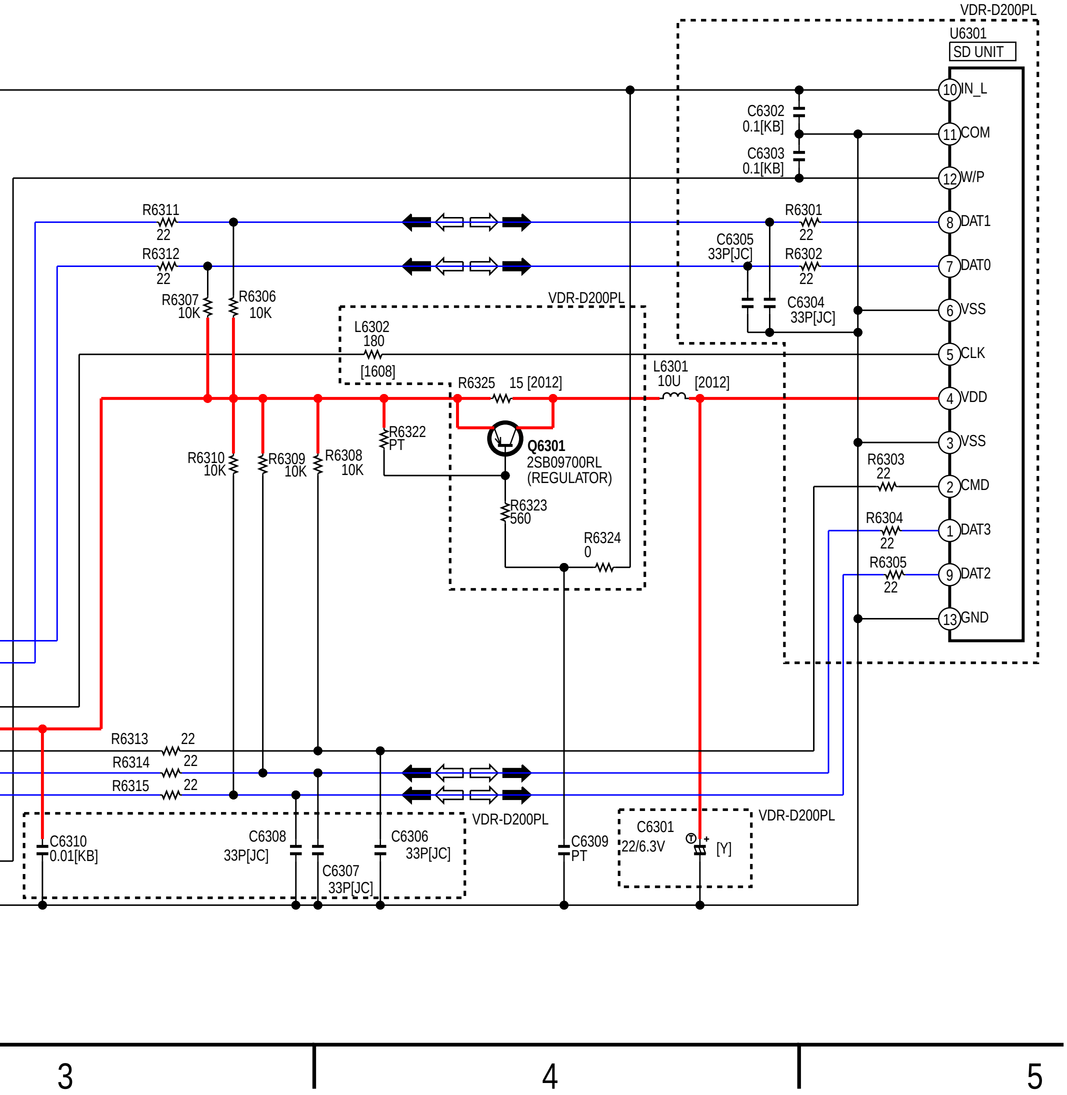
C
B
A
1
2
3
REC VIDEO
OPEN SWITCH P.C.B.
SW8301
K0LIAA000010
LCD OPEN/CLOSE
P8302
P8301
P6303
LCD_OPEN 1
P6304
GND 1
(TO SPEAKER)
P6301
SP- 2
SP+ 1
TO MAIN P.C.B.
FP1
FP6301
GND 22
LCD_OPEN 21
SP+ 20
SP- 19
GND 18
ACCESS_LED 17
NC 16
GND 15
RESET_SW 14
VDD 13
AUTO/MNL 12
CARD_D0 11
CARD_D1 10
GND 9
CARD_CLK 8
DSC+315V 7
CARD_CMD 6
CARD_D3 5
CARD_D2 4
GND 3
CARD_DET 2
CARD_PRO 1
TP6301
R6321
PT
BT6301
PT
D6301
B3AAB0000038
ACCESS [1608]
VDR-D200PL
SW6301
K0F111A00472
RESET
SW6302
FOCUS
K0D113B00087
R6316
22K
R6317
22K
1
2
3
4
[AUTO]
[MNL]
[MF]
R6311
22
R6312
22
R6307
10K
R6310
10K
R6313 22
R6314 22
R6315 22
C6310
0.01[KB]
33

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

⬅ REC VIDEO SIGNAL ⇦ PB VIDEO SIGNAL ⬅ REC AUDIO SIGNAL ⇦ PB AUDIO SIGNAL


VDR-D200PL
U6301
SD UNIT
10 IN_L
11 COM
12 W/P
8 DAT1
7 DAT0
6 VSS
5 CLK
4 VDD
3 VSS
2 CMD
1 DAT3
9 DAT2
13 GND
C6302 0.1[KB]
C6303 0.1[KB]
R6301 22
R6302 22
C6305 33P[JC]
C6304 33P[JC]
R6311 22
R6312 22
R6307 10K
R6306 10K
VDR-D200PL
L6302 180 [1608]
R6325 15 [2012]
L6301 10U [2012]
R6322 PT
Q6301
2SB09700RL
(REGULATOR)
R6323 560
R6324 0
R6310 10K
R6309 10K
R6308 10K
R6303 22
R6304 22
R6305 22
R6313 22
R6314 22
R6315 22
C6310 0.01[KB]
C6308 33P[JC]
C6307 33P[JC]
C6306 33P[JC]
VDR-D200PL
C6309 PT
C6301 22/6.3V [Y]
VDR-D200PL
3
4
5

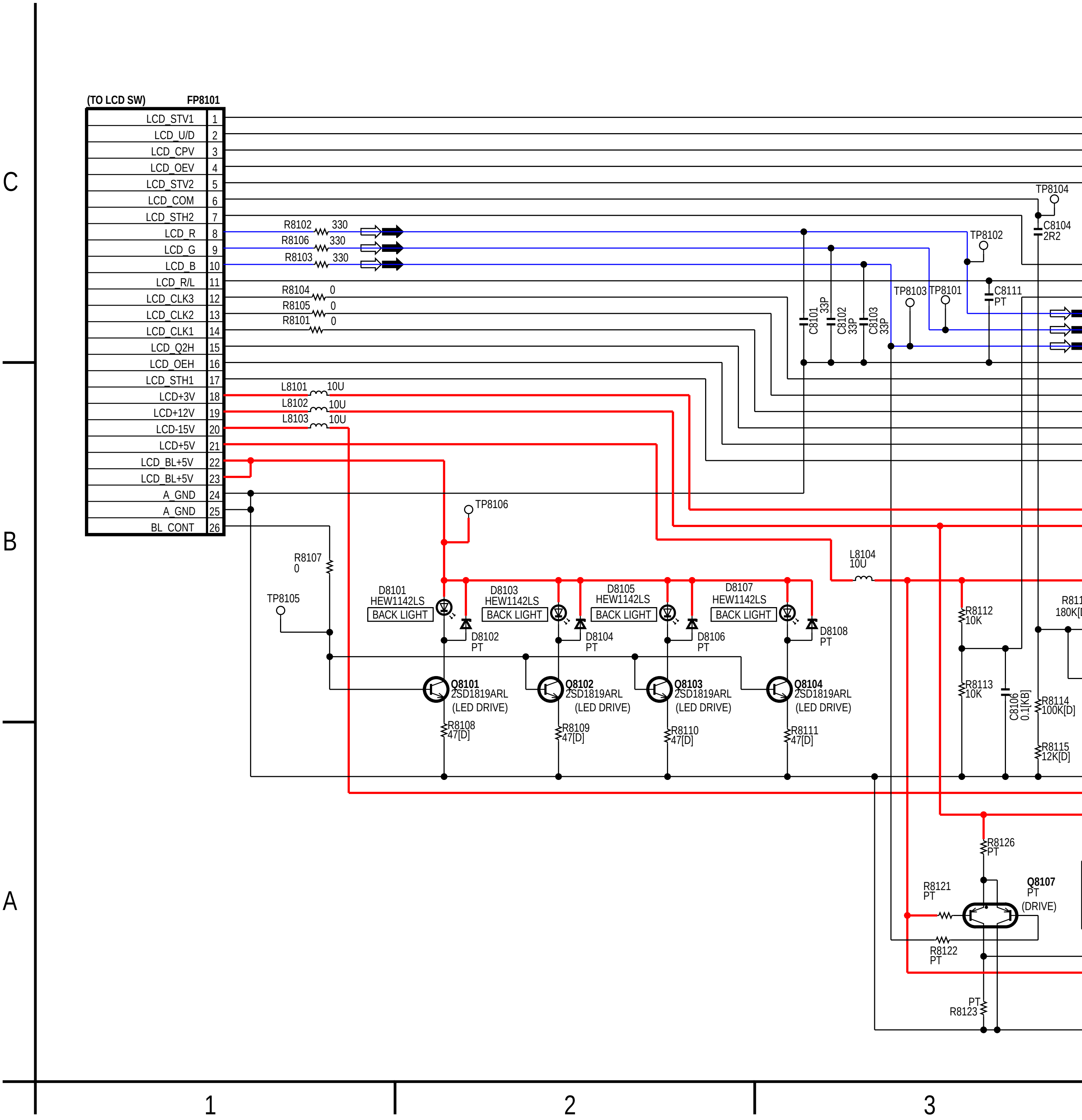
LSJB8339
SIDE R SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

12.5. LCD BACKLIGHT SCHEMATIC DIAGRAM

LCD BACKLIGHT SCHEMATIC DIAGRAM

NOTE:
ALL INDIVIDUAL PARTS EXCEPT D8101, D8103, D8105, AND D8107 ON LCD BACKLIGHT P.C.B. ARE SUPPLIED AS REPLACEMENT PARTS. WHEN SERVICING THESE PARTS, REPLACE LCD BACKLIGHT P.C.B. INSTEAD OF INDIVIDUAL PARTS.

NOTE: For placing a purcl
be sure to use the
Do not use the par

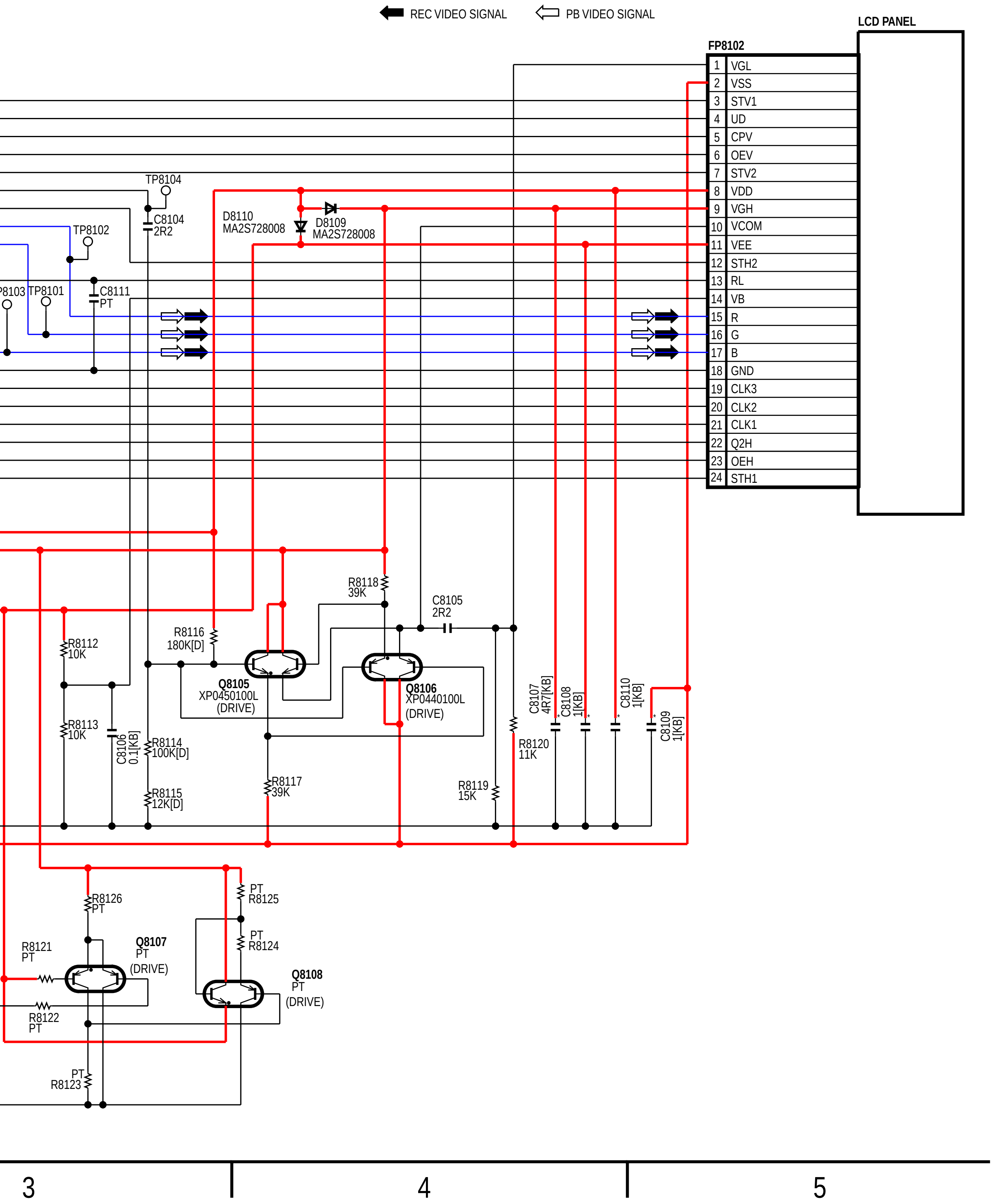


(TO LCD SW)
FP8101
LCD_STV1 1
LCD_U/D 2
LCD_CPV 3
LCD_OEV 4
LCD_STV2 5
LCD_COM 6
LCD_STH2 7
LCD_R 8
LCD_G 9
LCD_B 10
LCD_R/L 11
LCD_CLK3 12
LCD_CLK2 13
LCD_CLK1 14
LCD_Q2H 15
LCD_OEH 16
LCD_STH1 17
LCD+3V 18
LCD+12V 19
LCD-15V 20
LCD+5V 21
LCD_BL+5V 22
LCD_BL+5V 23
A_GND 24
A_GND 25
BL_CONT 26
C
B
A
1
2
3
R8102 330
R8106 330
R8103 330
R8104 0
R8105 0
R8101 0
L8101 10U
L8102 10U
L8103 10U
TP8104
C8104 2R2
TP8102
TP8103
TP8101
C8111 PT
C8101 33P
C8102 33P
C8103 33P
TP8106
TP8105
R8107 0
D8101 HEW1142LS BACK LIGHT
D8102 PT
D8103 HEW1142LS BACK LIGHT
D8104 PT
D8105 HEW1142LS BACK LIGHT
D8106 PT
D8107 HEW1142LS BACK LIGHT
D8108 PT
L8104 10U
Q8101 2SD1819ARL (LED DRIVE)
Q8102 2SD1819ARL (LED DRIVE)
Q8103 2SD1819ARL (LED DRIVE)
Q8104 2SD1819ARL (LED DRIVE)
R8108 47[D]
R8109 47[D]
R8110 47[D]
R8111 47[D]
R8112 10K
R8113 10K
R811 180K[
C8106 0.1[KB]
R8114 100K[D]
R8115 12K[D]
R8126 PT
R8121 PT
Q8107 PT (DRIVE)
R8122 PT
PT R8123

NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
LCD PANEL
FP8102
1 VGL
2 VSS
3 STV1
4 UD
5 CPV
6 OEV
7 STV2
8 VDD
9 VGH
10 VCOM
11 VEE
12 STH2
13 RL
14 VB
15 R
16 G
17 B
18 GND
19 CLK3
20 CLK2
21 CLK1
22 Q2H
23 OEH
24 STH1
TP8104
C8104 2R2
TP8102
P8103
TP8101
C8111 PT
D8110 MA2S728008
D8109 MA2S728008
R8118 39K
C8105 2R2
R8116 180K[D]
R8112 10K
R8113 10K
C8106 0.1[KB]
R8114 100K[D]
R8115 12K[D]
Q8105 XP0450100L (DRIVE)
Q8106 XP0440100L (DRIVE)
R8117 39K
R8119 15K
R8120 11K
C8107 4R7[KB]
C8108 1[KB]
C8110 1[KB]
C8109 1[KB]
R8126 PT
PT R8125
PT R8124
R8121 PT
Q8107 PT (DRIVE)
Q8108 PT (DRIVE)
R8122 PT
PT R8123
3
4
5

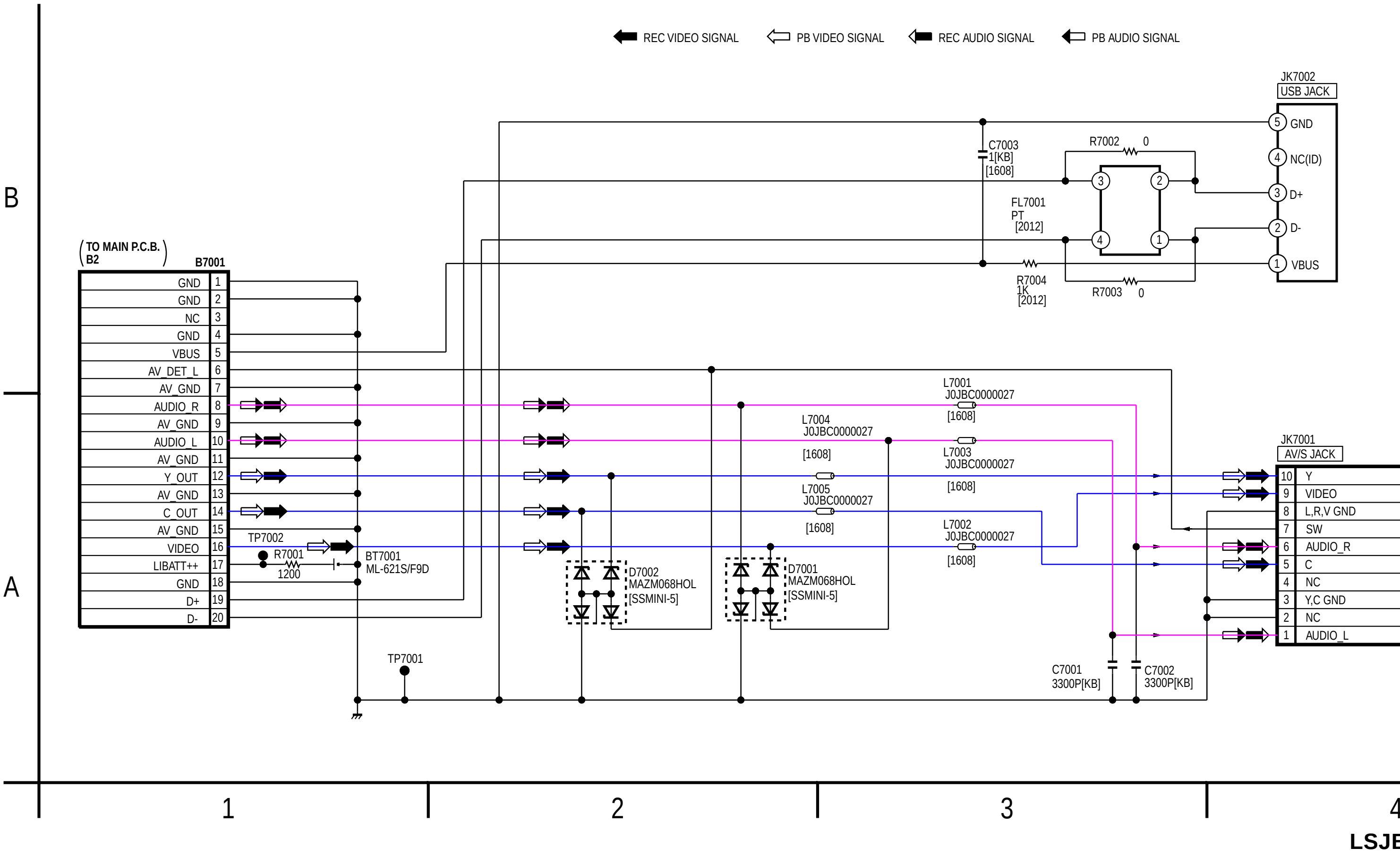
LINK TO VOLTAGE CHART

LSJB8318
LCD BACKLIGHT SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

12.6. JACK / EVF BACKLIGHT / DISK COVER LOCK SCHEMATIC DIAGRAMS

NOTE: For placing a purcl
be sure to use the
Do not use the par

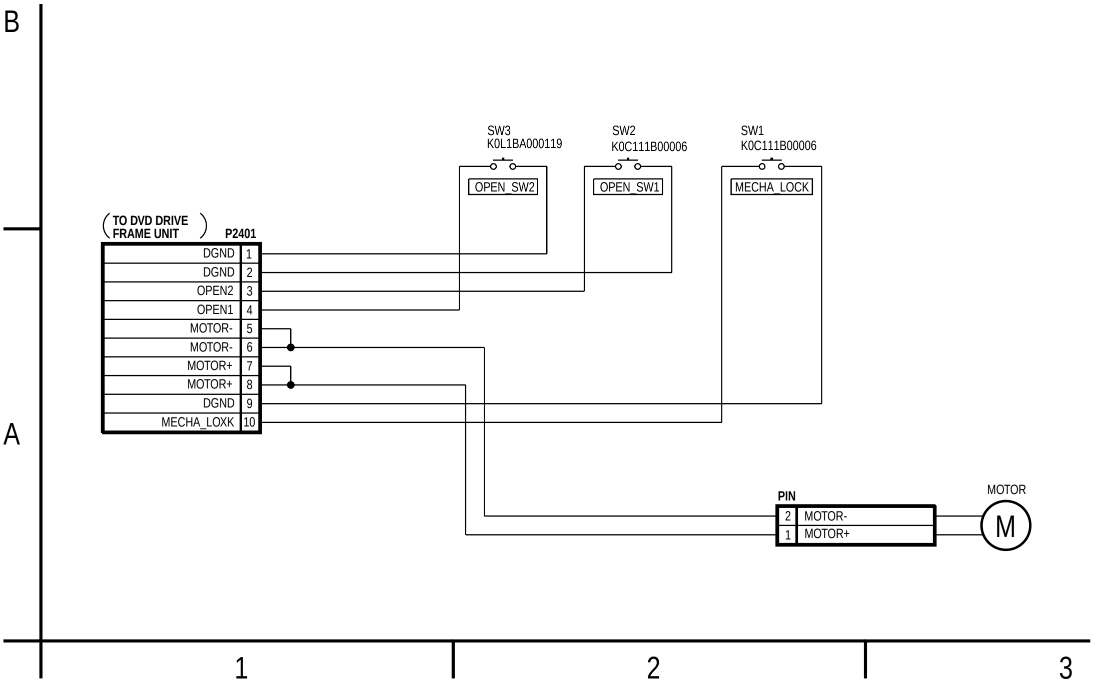
JACK SCHEMATIC DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
B
A
1
2
3
4
LSJE
TO MAIN P.C.B. B2
B7001
GND 1
GND 2
NC 3
GND 4
VBUS 5
AV_DET_L 6
AV_GND 7
AUDIO_R 8
AV_GND 9
AUDIO_L 10
AV_GND 11
Y_OUT 12
AV_GND 13
C_OUT 14
AV_GND 15
VIDEO 16
LIBATT++ 17
GND 18
D+ 19
D- 20
TP7002
R7001 1200
BT7001 ML-621S/F9D
TP7001
D7002 MAZM068HOL [SSMINI-5]
D7001 MAZM068HOL [SSMINI-5]
L7001 J0JBC0000027 [1608]
L7002 J0JBC0000027 [1608]
L7003 J0JBC0000027 [1608]
L7004 J0JBC0000027 [1608]
L7005 J0JBC0000027 [1608]
C7001 3300P[KB]
C7002 3300P[KB]
C7003 1[KB] [1608]
R7002 0
R7003 0
R7004 1K [2012]
FL7001 PT [2012]
JK7002 USB JACK
5 GND
4 NC(ID)
3 D+
2 D-
1 VBUS
JK7001 AV/S JACK
10 Y
9 VIDEO
8 L,R,V GND
7 SW
6 AUDIO_R
5 C
4 NC
3 Y,C GND
2 NC
1 AUDIO_L

DISK COVER LOCK SCHEMATIC DIAGRAM

NOTE:
DISK COVER LOCK UNIT IS NOT SERVICEABLE AND IS SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

“FOR REFERENCE ONLY”


B
A
1
2
3
TO DVD DRIVE FRAME UNIT
P2401
DGND 1
DGND 2
OPEN2 3
OPEN1 4
MOTOR- 5
MOTOR- 6
MOTOR+ 7
MOTOR+ 8
DGND 9
MECHA_LOXK 10
SW3 K0L1BA000119
OPEN_SW2
SW2 K0C111B00006
OPEN_SW1
SW1 K0C111B00006
MECHA_LOCK
PIN
2 MOTOR-
1 MOTOR+
MOTOR
M

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

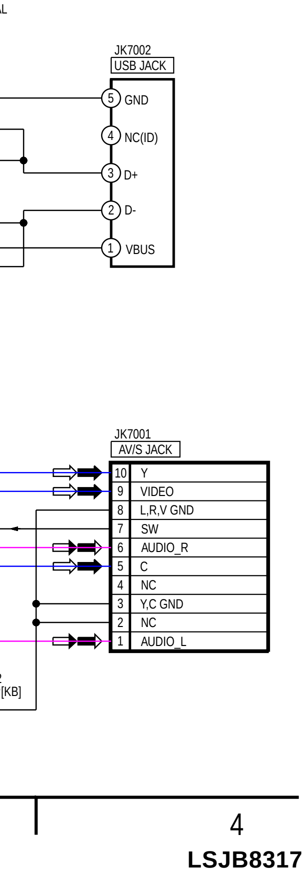
NOTE:
PARTS MARKED "PT" ARE NOT USED.

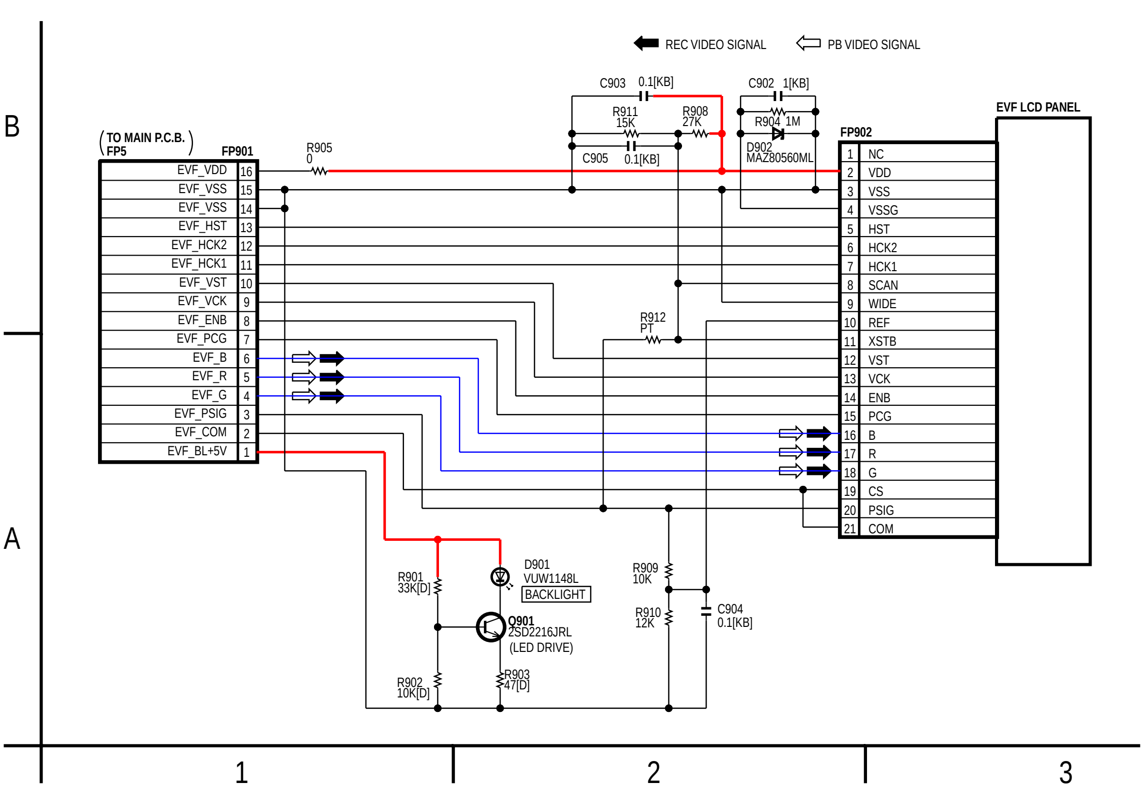
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

EVF BACKLIGHT SCHEMATIC DIAGRAM

NOTE:
EVF BACKLIGHT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

“FOR REFERENCE ONLY”


L
JK7002
USB JACK
5 GND
4 NC(ID)
3 D+
2 D-
1 VBUS
JK7001
AV/S JACK
10 Y
9 VIDEO
8 L,R,V GND
7 SW
6 AUDIO_R
5 C
4 NC
3 Y,C GND
2 NC
1 AUDIO_L
[KB]
4
LSJB8317


REC VIDEO SIGNAL
PB VIDEO SIGNAL
B
A
TO MAIN P.C.B. FP5
FP901
EVF_VDD 16
EVF_VSS 15
EVF_VSS 14
EVF_HST 13
EVF_HCK2 12
EVF_HCK1 11
EVF_VST 10
EVF_VCK 9
EVF_ENB 8
EVF_PCG 7
EVF_B 6
EVF_R 5
EVF_G 4
EVF_PSIG 3
EVF_COM 2
EVF_BL+5V 1
R905 0
C903 0.1[KB]
C902 1[KB]
R911 15K
R908 27K
R904 1M
C905 0.1[KB]
D902 MAZ80560ML
EVF LCD PANEL
FP902
1 NC
2 VDD
3 VSS
4 VSSG
5 HST
6 HCK2
7 HCK1
8 SCAN
9 WIDE
10 REF
11 XSTB
12 VST
13 VCK
14 ENB
15 PCG
16 B
17 R
18 G
19 CS
20 PSIG
21 COM
R912 PT
D901 VUW1148L
BACKLIGHT
R901 33K[D]
Q901 2SD2216JRL (LED DRIVE)
R909 10K
R910 12K
C904 0.1[KB]
R902 10K[D]
R903 47[D]
1
2
3

LINK TO VOLTAGE CHART

JACK SCHEMATIC DIAGRAM
EVF BACKLIGHT SCHEMATIC DIAGRAM
DISK COVER LOCK SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

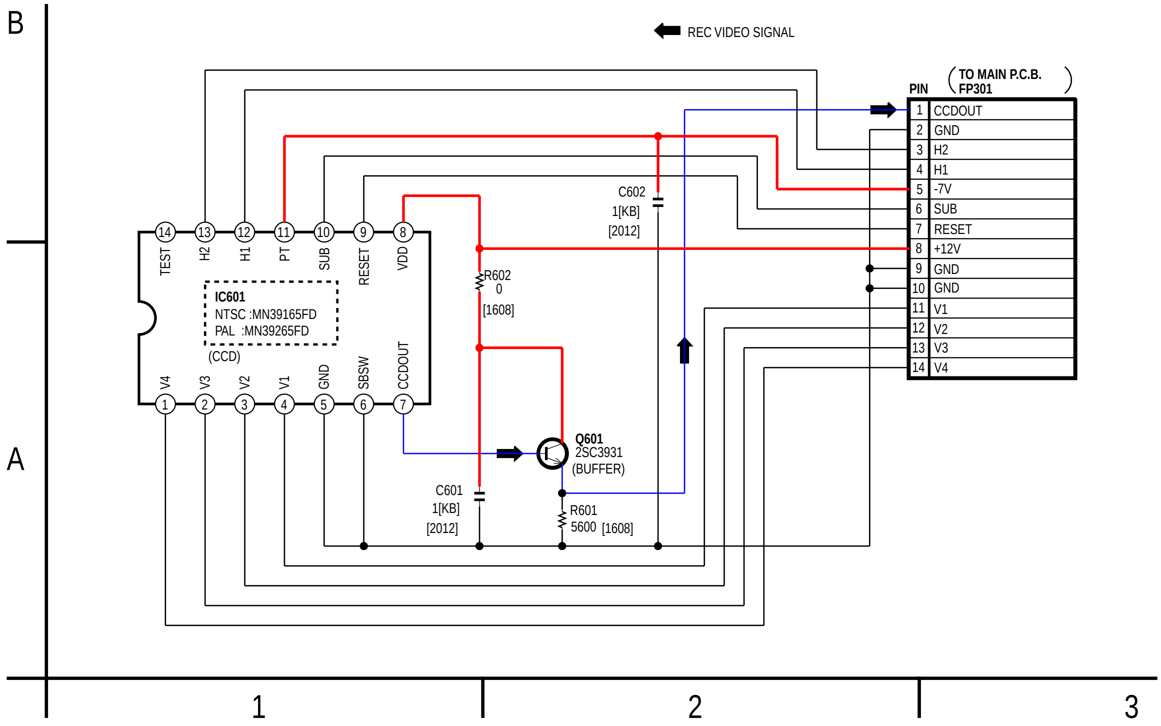
12.7. CCD / LCD SW / SIDE L/DISK SCHEMATIC DIAGRAMS

NOTE: For placing a purcl
be sure to use the
Do not use the par

CCD SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

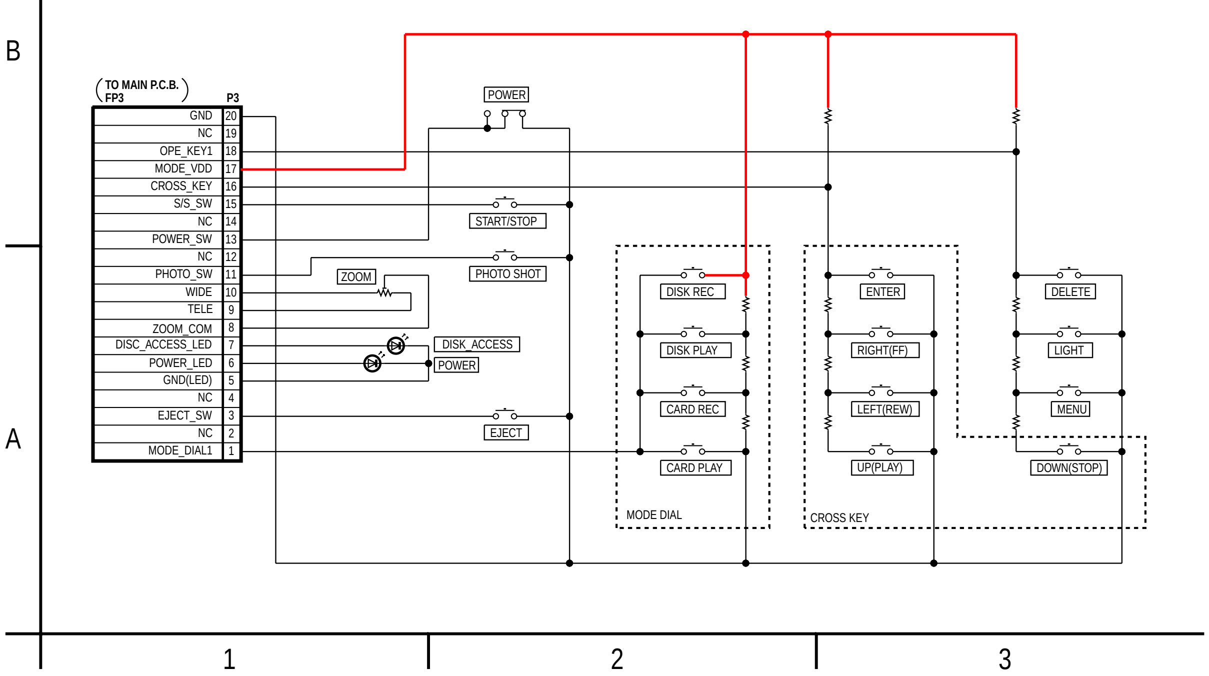
NOTE:
CCD P.C.B. IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


B
A
REC VIDEO SIGNAL
TO MAIN P.C.B.
FP301
PIN
1 CCDOUT
2 GND
3 H2
4 H1
5 -7V
6 SUB
7 RESET
8 +12V
9 GND
10 GND
11 V1
12 V2
13 V3
14 V4
14 TEST
13 H2
12 H1
11 PT
10 SUB
9 RESET
8 VDD
1 V4
2 V3
3 V2
4 V1
5 GND
6 SBSW
7 CCDOUT
IC601
NTSC :MN39165FD
PAL :MN39265FD
(CCD)
C602
1[KB]
[2012]
R602
0
[1608]
Q601
2SC3931
(BUFFER)
C601
1[KB]
[2012]
R601
5600 [1608]
1
2
3

SIDE L / DISK SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
SIDE L/DISK UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.


B
A
TO MAIN P.C.B.
FP3
P3
GND 20
NC 19
OPE_KEY1 18
MODE_VDD 17
CROSS_KEY 16
S/S_SW 15
NC 14
POWER_SW 13
NC 12
PHOTO_SW 11
WIDE 10
TELE 9
ZOOM_COM 8
DISC_ACCESS_LED 7
POWER_LED 6
GND(LED) 5
NC 4
EJECT_SW 3
NC 2
MODE_DIAL1 1
POWER
START/STOP
ZOOM
PHOTO SHOT
DISK_ACCESS
POWER
EJECT
DISK REC
DISK PLAY
CARD REC
CARD PLAY
MODE DIAL
ENTER
RIGHT(FF)
LEFT(REW)
UP(PLAY)
CROSS KEY
DELETE
LIGHT
MENU
DOWN(STOP)
1
2
3

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

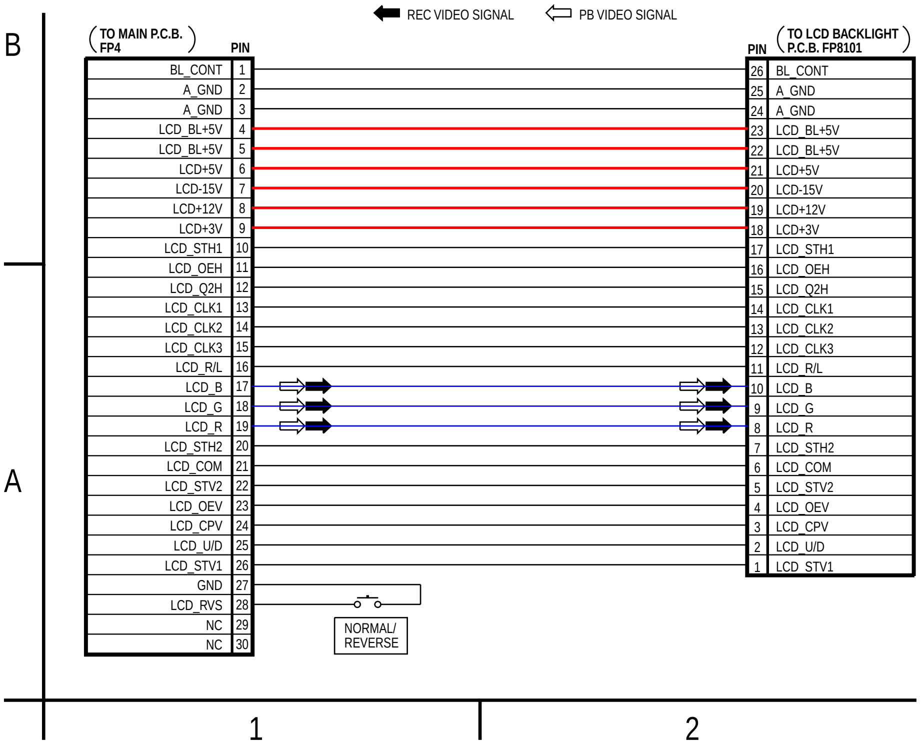
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

ENT.

LCD SW SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
LCD SW IS NOT SERVICEABLE AND IS SUPPLIED AS
A LCD SHAFT CASE UNIT ONLY FOR REPLACEMENT.



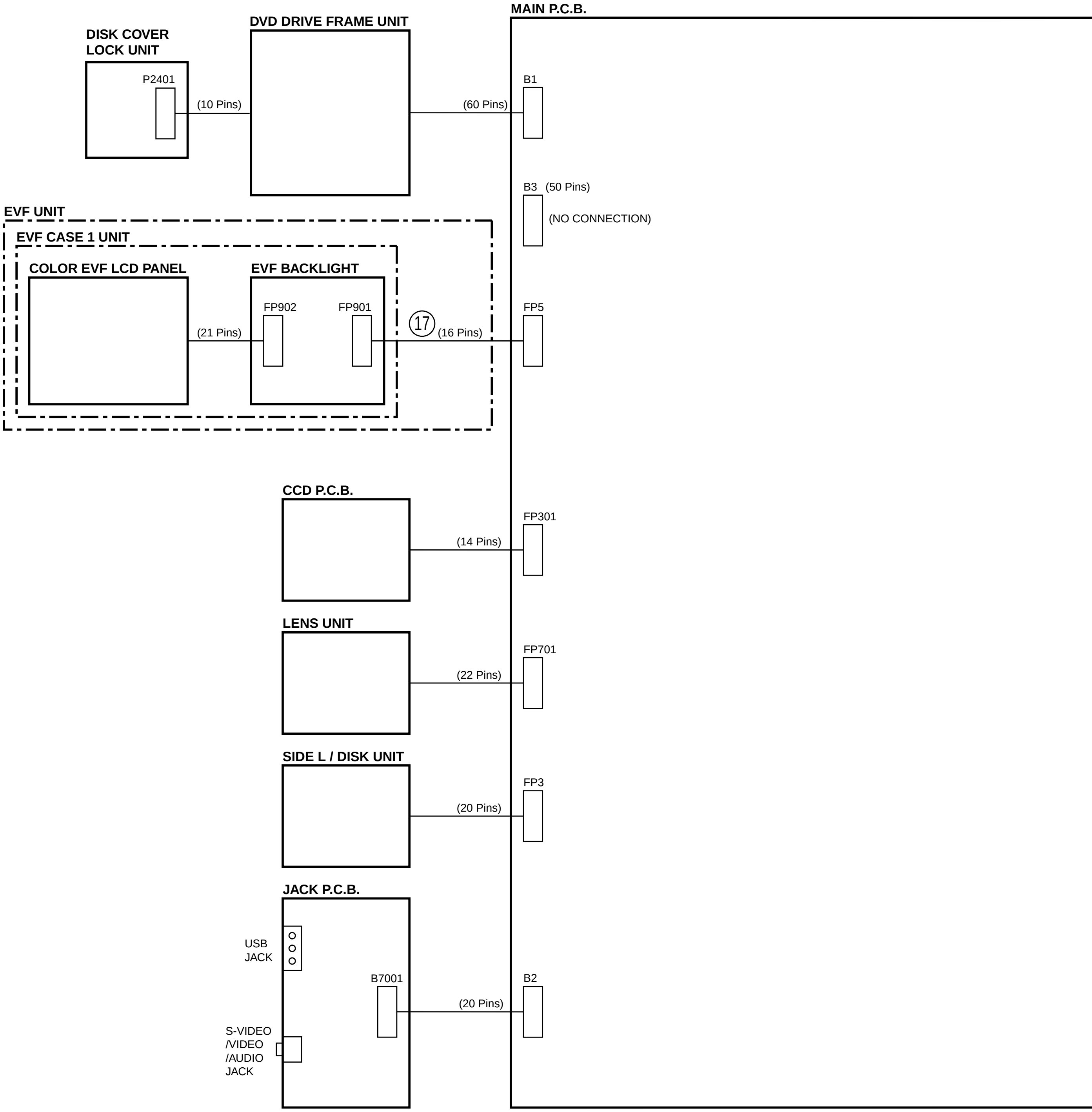
REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN P.C.B. FP4
PIN
TO LCD BACKLIGHT P.C.B. FP8101
PIN
BL_CONT 1 — 26 BL_CONT
A_GND 2 — 25 A_GND
A_GND 3 — 24 A_GND
LCD_BL+5V 4 — 23 LCD_BL+5V
LCD_BL+5V 5 — 22 LCD_BL+5V
LCD+5V 6 — 21 LCD+5V
LCD-15V 7 — 20 LCD-15V
LCD+12V 8 — 19 LCD+12V
LCD+3V 9 — 18 LCD+3V
LCD_STH1 10 — 17 LCD_STH1
LCD_OEH 11 — 16 LCD_OEH
LCD_Q2H 12 — 15 LCD_Q2H
LCD_CLK1 13 — 14 LCD_CLK1
LCD_CLK2 14 — 13 LCD_CLK2
LCD_CLK3 15 — 12 LCD_CLK3
LCD_R/L 16 — 11 LCD_R/L
LCD_B 17 — 10 LCD_B
LCD_G 18 — 9 LCD_G
LCD_R 19 — 8 LCD_R
LCD_STH2 20 — 7 LCD_STH2
LCD_COM 21 — 6 LCD_COM
LCD_STV2 22 — 5 LCD_STV2
LCD_OEV 23 — 4 LCD_OEV
LCD_CPV 24 — 3 LCD_CPV
LCD_U/D 25 — 2 LCD_U/D
LCD_STV1 26 — 1 LCD_STV1
GND 27
LCD_RVS 28
NC 29
NC 30
NORMAL/ REVERSE
B
A
1
2

IS
ENT.

12.8. INTERCONNECTION SCHEMATIC DIAGRAM

INTERCONNECTION SCHEMATIC DIAGRAM

NOTE: For placing a purcl
be sure to use the
Do not use the par

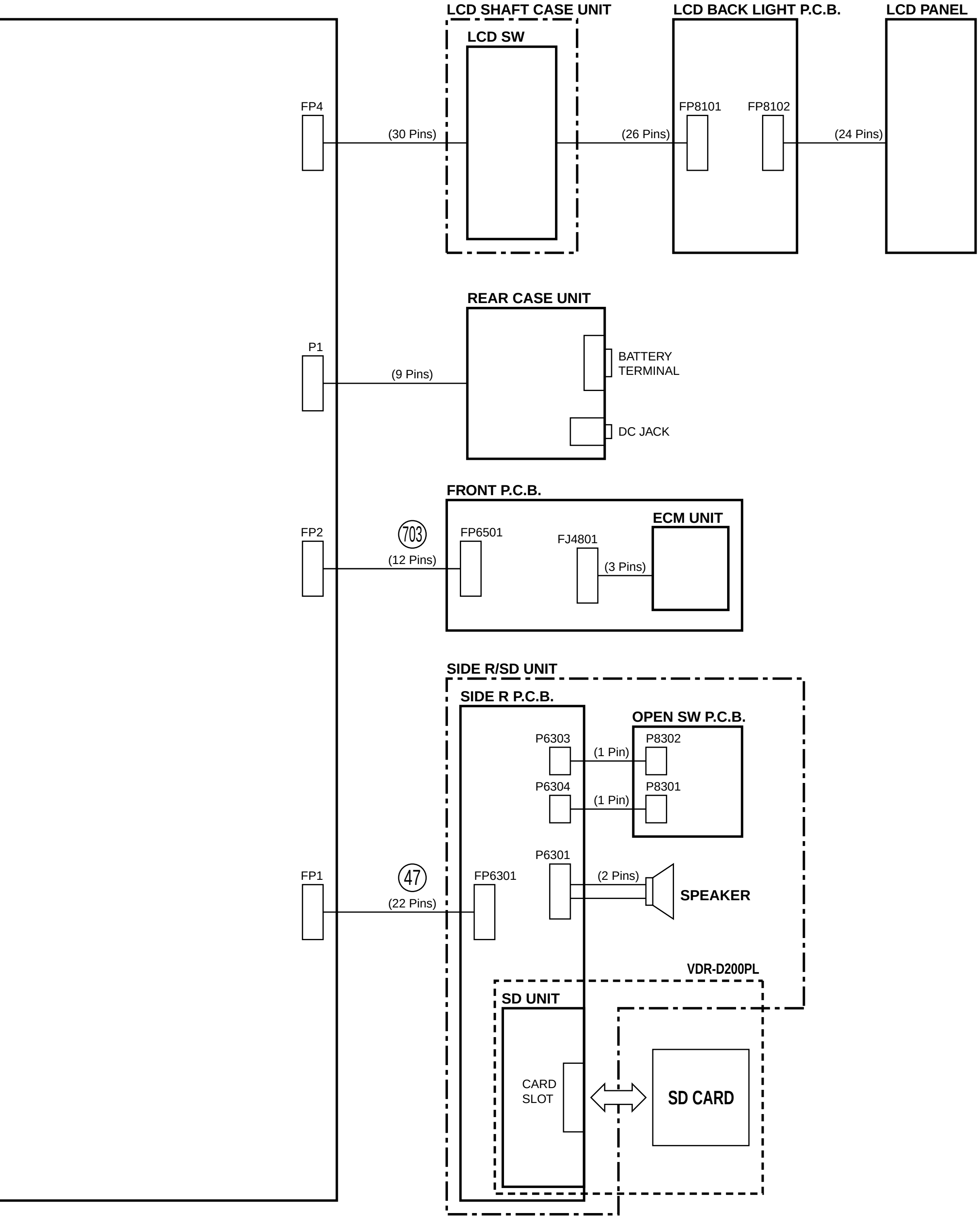


MAIN P.C.B.
DVD DRIVE FRAME UNIT
DISK COVER
LOCK UNIT
P2401
(10 Pins)
(60 Pins)
B1
B3 (50 Pins)
(NO CONNECTION)
EVF UNIT
EVF CASE 1 UNIT
COLOR EVF LCD PANEL
EVF BACKLIGHT
FP902
FP901
(21 Pins)
⑰
(16 Pins)
FP5
CCD P.C.B.
(14 Pins)
FP301
LENS UNIT
(22 Pins)
FP701
SIDE L / DISK UNIT
(20 Pins)
FP3
JACK P.C.B.
USB
JACK
B7001
(20 Pins)
B2
S-VIDEO
/VIDEO
/AUDIO
JACK

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


LCD SHAFT CASE UNIT
LCD SW
LCD BACK LIGHT P.C.B.
LCD PANEL
FP4
(30 Pins)
(26 Pins)
FP8101
FP8102
(24 Pins)
REAR CASE UNIT
P1
(9 Pins)
BATTERY
TERMINAL
DC JACK
FRONT P.C.B.
ECM UNIT
FP2
703
(12 Pins)
FP6501
FJ4801
(3 Pins)
SIDE R/SD UNIT
SIDE R P.C.B.
OPEN SW P.C.B.
P6303
(1 Pin)
P8302
P6304
(1 Pin)
P8301
P6301
FP1
47
(22 Pins)
FP6301
(2 Pins)
SPEAKER
VDR-D200PL
SD UNIT
CARD
SLOT
SD CARD

INTERCONNECTION SCHEMATIC DIAGRAM
VDR-D100PL/VDR-D200PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

MAIN P.C.B. (SYSTEM CONTROL/SERVO SECTION)

MODE PIN NO.	REC	PLAY	STOP
IC6001			
1	---	---	---
2	2.9	2.9	2.9
3	0	0	0
4	2.5	2.5	2.5
5	---	---	---
6	2.5	2.5	2.5
7	1.0	0.7	0.7
8	1.0	0.7	0.7
9	2.5	2.5	2.5
10	2.4	2.4	2.4
11	0.8	0.7	0.7
12	0.9	0.7	0.7
13	2.5	2.5	2.5
14	2.4	2.4	2.4
15	0.8	0.7	0.7
16	0	0	0
17	0.8	0.7	0.7
18	---	---	---
19	0	0	0
20	0	0	0
21	2.5	2.5	2.5
22	0.9	2.4	2.4
23	0	0	0
24	2.5	2.5	2.5
25	2.5	2.5	2.5
26	2.5	2.5	2.5
27	0	0	0
28	2.5	2.5	2.5
29	2.5	2.5	2.5
30	2.5	2.5	2.5
31	2.9	2.9	2.9
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	---	---	---
40	0	0	0
41	---	---	---
42	---	---	---
43	---	---	---
44	---	---	---
45	3.3	3.3	3.3
46	0	0	0
47	0	0	0
48	2.8	2.8	2.8
49	---	---	---
50	0	0	0
51	2.8	2.8	2.8
52	---	---	---
53	---	---	---
54	2.8	2.8	2.8

MODE PIN NO.	REC	PLAY	STOP
55	---	---	---
56	---	---	---
57	---	---	---
58	---	---	---
59	0	0	0
60	0	0	0
61	0	0	0
62	2.9	2.9	2.9
63	2.9	2.9	2.9
64	2.8	2.8	2.8
65	0	0	0
66	1.7	1.7	1.7
67	0	0	0
68	0.1	0.1	0.1
69	2.9	2.9	2.9
70	2.9	2.9	2.9
71	1.2	1.2	1.2
72	---	---	---
73	0	0	0
74	---	---	---
75	2.9	2.9	2.9
76	---	---	---
77	1.1	1.1	0
78	0	0	0
79	---	---	---
80	2.8	2.8	2.8
81	2.9	2.9	2.9
82	0	0	0
83	0	0	0
84	2.5	2.5	2.5
85	---	---	---
86	---	---	---
87	---	---	---
88	2.9	2.9	2.9
89	---	---	---
90	---	---	---
91	---	---	---
92	---	---	---
93	2.9	2.9	2.9
94	2.9	2.9	2.9
95	0	0	0
96	---	---	---
97	---	---	---
98	2.9	2.9	2.9
99	2.9	2.9	2.9
100	2.5	2.5	2.5
101	2.9	2.9	2.9
102	2.9	2.9	2.9
103	0	0	0
104	2.9	2.9	2.9
105	2.8	2.8	2.8
106	2.8	2.8	2.8
107	---	---	---
108	2.9	2.9	2.9
109	0	0	0

MODE PIN NO.	REC	PLAY	STOP
110	0		
111	2.8	2.8	2.8
112	---	---	---
113	---	---	---
114	0	0	0
115	2.8	2.8	2.8
116	2.9	2.9	2.9
117	0	0	0
118	2.9	2.9	2.9
119	2.9	2.9	2.9
120	0.9	0.9	0.9
121	2.9	2.9	2.9
122	---	---	---
123	0		
124	2.9	2.9	2.9
125	2.9	2.9	2.9
126	0	0	0
127	0	0	0
128	0	0	0
129	2.9	2.9	2.9
130	---	---	---
131	---	---	---
132	2.8	2.8	2.8
133	---	---	---
134	0	0	0
135	---	---	---
136	---	---	---
137	---	---	---
138	---	---	---
139	---	---	---
140	---	---	---
141	0	0	0
142	---	---	---
143	---	---	---
144	2.8	2.8	2.8
145	2.8	2.8	2.8
146	---	---	---
147	---	---	---
148	---	---	---
149	---	---	---
150	2.8	2.8	2.8
151	---	---	---
152	---	---	---
153	0	0	0
154	---	---	---
155	---	---	---
156	---	---	---
157	---	---	---
158	0	0	0
159	---	---	---
160	0	0	0
161	---	---	---
162	---	---	---
163	---	---	---
164	---	---	---

MODE PIN NO.	REC	PLAY	STOP
165	---	---	---
166	---	---	---
167	0	0	0
168	2.5	2.5	2.5
169	---	---	---
170	0	0	0
171	---	---	---
172	---	---	---
173	---	---	---
174	---	---	---
175	---	---	---
176	---	---	---
177	2.8	2.8	2.8
178	---	---	---
179	---	---	---
180	---	---	---
181	0	0	0
182	---	---	---
183	2.8	2.8	2.8
184	2.8	2.8	2.8
185	2.8	2.8	2.8
186	0	0	0
187	2.5	2.5	2.5
188	---	---	---
189	---	---	---
190	---	---	---
191	---	---	---
192	0	0	0
193	2.8	2.8	2.8
194	0	0	0
195	2.8	2.8	2.8
196	2.5	2.5	2.5
197	---	---	---
198	---	---	---
199	---	---	---
200	---	---	---
201	0	0	0
202	0	0	0
203	0	0	0
204	---	---	---
205	---	---	---
206	---	---	---
207	---	---	---
208	---	---	---
209	---	---	---
210	2.9	2.9	2.9
211	2.5	2.5	2.5
212	1.2	1.2	1.2
213	0	0	0
214	1.3	1.3	1.3
215	---	---	---
216	---	---	---
217	---	---	---
218	1.4	1.4	1.4
219	---	---	---

MODE PIN NO.	REC	PLAY	STOP
220	2.8	2.8	2.8
221	0	0	0
222	0	0	0
223	0	0	0
224	---	---	---
225	---	---	---
226	0.1	0.1	0.1
227	0	0	0
228	---	---	---
229	2.8	2.8	2.8
230	2.8	2.8	2.8
231	---	---	---
232	0.2	0.2	0.2
233	0	0	0
234	---	---	---
235	0	0	0
236	---	---	---
237	---	---	---
238	---	---	---
239	---	---	---
240	2.9	2.9	2.9
241	---	---	---
242	---	---	---
243	0	0	0
244	2.9	2.9	2.9
245	---	---	---
246	---	---	---
247	0	0	0
248	---	---	---
249	2.9	2.9	2.9
250	0	0	0
251	---	---	---
252	2.5	2.5	2.5
253	0	0	0
254	2.2		
255	2.9	2.9	2.9
256	2.4	2.4	2.4
257	1.4	1.4	1.4
258	---	---	---
259	2.8	2.8	2.8
260	2.8	2.8	2.8
261	2.0	2.0	2.0
262	0	0	0
263	2.8	2.8	2.8
264	2.8	2.8	2.8
265	2.8	2.8	2.8
266	0	0	0
267	1.3	1.3	1.3
268	2.8	2.8	2.8
269	2.8	2.8	2.8
270	2.8	2.8	2.8
271	---	---	---
272	0	0	0
273	0	0	0
274	0	0	0

MODE PIN NO.	REC	PLAY	STOP
275	0	0	0
276	0	0	0
277	0	0	0
278	0	0	0
279	0	0	0
280	0	0	0
281	2.9	2.9	2.9
282	---	---	---
283	---	---	---
284	---	---	---
IC6002			
1	2.5	2.5	2.5
2	2.8	2.8	2.8
3	2.9	2.9	2.9
4	0	0	0
5	2.9	2.9	2.9
6	2.9	2.9	2.9
7	2.5	2.5	2.5
8	0	0	0
9	---	---	---
10	3.3	3.3	3.3
11	3.3	3.3	3.3
12	0.5	0.5	0.5
13	0.9	0.9	0.9
14	2.9	2.9	2.9
15	3.3	3.3	3.3
16	8.1	8.1	8.1
IC6003			
1	2.5	2.5	2.5
2	3.3	3.3	3.3
3	---	---	---
4	0	0	0
IC6004			
1	2.9	2.9	2.9
2	2.9	2.9	2.9
3	2.9	2.9	2.9
4	0.9	0.9	0.9
5	0	0	0
6	2.9	2.9	2.9
7	---	---	---
8	2.8	2.8	2.8
Q6001			
E	0	0	0
C	0	0	0
B	2.9	2.9	2.9
Q6002			
E	0	0	0
C	4.6	4.2	4.2
B	0	0	0
Q6003			
E	2.8	2.8	2.8
C	-0.2	-3.8	-3.1
B	2.9	2.9	2.9

MODE PIN NO.	REC	PLAY	STOP
Q6005			
E	2.8	2.8	2.8
C	2.7	2.7	2.7
B	0	0	0
Q6006			
E	2.8	2.8	2.8
C	-1.2	2.7	-0.3
B	2.9	0	2.9
TP6001	0.3	0	2.8
TP6002	2.8	2.8	2.8
TP6006	2.5	2.5	2.5
TP6007	2.9	2.9	2.9
TP6008	2.9	2.9	2.9
TP6009	0	0	0
TP6010	0	0	0
TP6011	0	0	0
TP6012	0	0	0
TP6013	0	0	0
TP6014	0	0	0
TP6015	0	0	0
TP6016	0	0	0
TP6017	0	0	0
TP6019	2.8	2.8	2.8
TP6020	2.8	2.8	2.8
TP6021	2.8	2.8	2.8
TP6022	2.8	2.8	2.8
TP6024	2.9	2.9	2.9

VOLTAGE CHART
VDR-D100PL/VDR-D200PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MAIN P.C.B. (CAMERA SECTION)

MODE PIN NO.	CAMERA
IC301	
1	4.7
2	0
3	0
4	---
5	3.3
IC302	
1	---
2	---
3	0.1
4	0.3
5	---
6	0
7	3.0
8	1.2
9	2.9
10	0
11	2.9
12	0.6
13	0
14	0
15	2.9
16	2.9
17	0
18	3.0
19	0.2
20	0.2
21	2.7
22	2.7
23	2.9
24	---
25	0
26	3.2
27	0.6
28	0
29	3.2
30	0.9
31	0
32	0
33	3.2
34	3.0
35	1.3
36	0
37	0
38	0.1
39	0.2
40	0.7
41	---
42	3.0
43	0
44	2.8
45	---
46	0.1
47	0.6
48	---
IC303	
1	---
2	0
3	1.2
4	3.2
IC304	
1	-7.0
2	-7.0
3	-0.2
4	0
5	0
6	3.0
7	0.4
8	2.9
9	0.2
10	2.9
11	---
12	2.7
13	2.9
14	2.7
15	0
16	12.0
17	-6.6
18	-6.6
19	0
20	12.0
IC701	
1	0.1
2	2.9
3	2.9
4	2.9
5	0
6	0
7	0
8	0
9	5.0
10	1.3
11	8.1
12	7.4
13	1.6
14	1.6
15	2.9
16	1.1
17	0
18	0.1
19	5.1
20	1.5
21	1.5
22	1.5
23	1.5
24	1.5
25	1.5
26	1.8
27	1.5
28	1.5
29	1.9
30	1.1
31	0.2
32	1.0
33	2.9
34	1.0
35	2.9
36	2.9
37	2.9
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	2.9
Q701	
E	8.1
C	5.1
B	7.5
TP702	2.8
TP703	0.1
TP704	0
TP705	2.9
TP706	2.8
TP707	0
TP708	2.9

MAIN P.C.B. (POWER/VIDEO/AUDIO SECTION)

MODE PIN NO.	REC	PLAY
IC501		
1	1.4	0.5
2	1.1	0.5
3	1.6	0.5
4	0	0.5
5	0	0.5
6	0	0.5
7	0	0.5
8	0	0.5
9	0	0.5
10	2.8	2.8
11	0	0
12	1.3	1.4
13	2.8	2.8
14	0	0
15	0	0
16	0.7	0
17	0.7	0
18	0	0
19	2.8	2.8
20	1.9	0.6
21	2.0	0.6
22	1.9	0
23	1.9	0.3
24	1.2	1.2
25	2.8	2.8
26	0	0
27	---	---
28	1.4	1.4
29	1.9	1.9
30	0.9	0.8
31	2.8	2.8
32	0	0
33	2.8	2.0
34	2.8	2.8
35	2.8	2.8
36	1.5	0.7
IC1001		
1	0	0
2	0.5	0.5
3	0.7	0.7
4	0.6	0.6
5	1.3	1.3
6	1.3	1.3
7	1.3	1.3
8	1.0	1.0
9	0	0
10	---	---
11	2.5	2.5
12	---	---
13	2.5	2.5
14	1.4	1.4
15	1.3	1.3
16	1.3	1.3
17	0.8	0.8
18	2.5	2.5
19	2.5	2.5
20	1.3	1.3
21	1.3	1.3
22	1.3	1.3
23	0.8	0.8
24	2.5	2.5
25	0	0
26	0	0
27	8.2	8.2
28	3.0	3.0
29	2.0	2.0
30	2.0	2.0
31	0	0
32	0	0
33	0.5	0.5
34	0.6	0.6
35	0	0
36	2.0	2.0
37	1.3	1.3
38	1.3	1.3
39	2.5	2.5
40	1.3	1.3
41	1.3	1.3
42	2.5	2.5
43	1.3	1.3
44	1.2	1.2
45	2.5	2.5
46	1.3	1.3
47	1.1	1.1
48	2.5	2.5
49	0	0
50	6.6	6.6
51	5.6	5.6
52	8.2	8.2
53	6.1	6.1
54	5.1	5.1
55	0	0
56	5.1	5.1
57	4.7	4.7
58	8.2	8.2
59	8.2	8.2
60	3.4	3.4
61	3.9	3.9
62	---	---
63	0	0
64	0	0
IC3001		
1	---	---
2	---	---
3	---	---
4	---	---
5	---	---
6	0.8	0.8
7	0	0
8	0.9	0.9
9	0.8	0.8
10	0.9	0.9
11	---	---
12	---	---
13	---	---
14	1.0	1.0
15	3.2	3.2
16	0.7	0.7
17	3.2	3.2
18	0.9	0.9
19	1.2	1.2
20	0	0
21	0	0
22	3.2	3.2
23	3.2	3.2
24	3.2	3.2
25	3.2	3.2
26	3.2	3.2
27	0	0
28	0	0
29	3.2	3.2
30	0	0
31	3.2	3.2
32	3.2	3.2
33	0	0
34	---	---
35	---	---
36	---	---
37	---	---
38	---	---
39	2.8	2.8
40	0	0
41	---	---
42	---	---
43	---	---
44	2.8	2.8
45	2.8	2.8
46	---	---
47	---	---
48	2.8	2.8
49	---	---
50	---	---
51	---	---
52	0	0
53	2.8	2.8
54	1.8	1.8
55	---	---
56	1.9	1.9
57	---	---
58	---	---
59	0	0
60	1.8	1.8
61	0.6	0.6
62	0.6	0.6
63	1.8	1.8
64	---	---
65	---	---
66	---	---
67	---	---
68	0	0
69	---	---
70	---	---
71	---	---
72	---	---
73	---	---
74	0	0
75	1.8	1.8
76	---	---
77	---	---
78	---	---
79	---	---
80	0	0
81	1.8	1.8
82	1.8	1.8
83	---	---
84	---	---
85	---	---
86	---	---
87	---	---
88	---	---
89	---	---
90	---	---
91	---	---
92	---	---
93	---	---
94	---	---
95	1.8	1.8
96	0	0
97	---	---
98	---	---
99	---	---
100	---	---
101	---	---
102	---	---
103	---	---
104	1.8	1.8
105	0	0
106	---	---
107	---	---
108	---	---
109	---	---
110	0	0
111	1.8	1.8
112	---	---
113	---	---
114	---	--
115	---	---
116	---	---
117	---	---
118	0	0
119	---	---
120	---	---
121	---	---
122	---	---
123	---	---
124	---	---
125	---	---
126	---	---
127	---	----
128	---	---
129	1.2	1.2
130	---	---
131	---	---
132	---	---
133	---	---
134	0	0
135	---	---
136	---	---
137	---	---
138	---	----
139	0	0
140	---	---
141	---	---
142	---	---
143	---	----
144	---	---
145	1.8	1.8
146	1.8	1.8
147	0	0
148	3.2	3.2
149	0	0
150	0	0
151	3.2	3.2
152	2.9	2.9
153	0	0
154	3.2	3.2
155	3.2	3.2
156	3.2	3.2
157	3.2	3.2
158	3.2	3.2
159	3.2	3.2
160	3.2	3.2
161	3.2	3.2
162	3.2	3.2
163	3.2	3.2
164	3.2	3.2
165	0	0
166	3.2	3.2
167	3.2	3.2
168	3.2	3.2
169	3.2	3.2
170	3.2	3.2
171	0	0
172	0	0
173	---	---
174	0	0
175	0	0
176	0	0
177	0	0
178	---	---
179	3.2	3.2
180	3.2	3.2
181	0	0
182	---	---
183	0	0
184	---	---
185	2.8	2.8
186	---	---
187	0.1	0.1
188	---	---
189	---	---
190	---	---
191	---	---
192	---	---
193	---	---
194	0	0
195	---	---
196	---	---
197	---	---
198	---	---
199	---	---
200	---	---
201	---	---
202	---	---
203	2.8	2.8
204	0	0
205	2.8	2.8
206	2.8	2.8
207	2.8	2.8
208	2.8	2.8
209	2.8	2.8
210	0	0
211	1.2	1.2
212	---	---
213	0	0
214	2.8	2.8
215	1.4	1.4
216	2.8	2.8
217	0	0
218	0	0
219	2.8	2.8
220	---	---
221	---	---
222	---	----
223	---	---
224	---	---
225	---	---
226	2.8	2.8
227	2.8	2.8

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MODE PIN NO.	REC	PLAY
228	---	---
229	0	0
230	2.8	2.8
231	---	---
232	2.8	2.8
233	0	0
234	---	---
235	---	---
236	---	---
237	---	---
238	0	0
239	2.8	2.8
240	---	---
241	---	---
242	---	---
243	---	---
244	---	---
245	---	---
246	---	---
247	---	---
248	---	---
249	---	---
250	---	---
251	---	---
252	---	---
253	---	---
254	---	---
255	---	---
256	---	---
257	---	---
258	2.8	2.8
259	---	---
260	---	---
261	---	---
262	---	---
263	---	---
264	---	---
265	---	---
266	---	---
267	0	0
268	---	---
269	---	---
270	2.8	2.8
271	---	---
272	---	---
273	---	---
274	---	---
275	---	---
276	---	---
277	---	---
278	1.2	1.2
279	---	---
280	---	---
281	---	---
282	---	---

MODE PIN NO.	REC	PLAY
283	---	---
284	---	---
285	---	---
286	---	---
287	---	---
288	2.8	2.8
289	2.8	2.8
290	0	0
291	---	---
292	0	0
293	2.8	2.8
294	0	0
295	---	---
296	---	---
297	---	---
298	2.8	2.8
299	0	0
300	0	0
301	2.8	2.8
302	---	---
303	---	---
304	---	---
305	---	---
306	---	---
307	---	---
308	---	---
309	---	---
310	---	---
311	---	---
312	0	0
313	---	---
314	---	---
315	---	---
316	2.8	2.8
317	---	---
318	---	---
319	---	---
320	---	---
321	---	---
322	0	0
323	2.8	2.8
324	0	0
325	0	0
326	2.8	2.8
327	0.3	0.3
328	0.1	0.1
329	0	0
330	0.6	0.6
331	2.8	2.8
332	2.8	2.8
333	0	0
334	---	---
335	---	---
336	0	0
337	0	0

MODE PIN NO.	REC	PLAY
338	0	0
339	2.8	2.8
340	2.8	2.8
341	0.4	0.4
342	0.4	0.4
343	0.4	0.4
344	1.2	1.2
345	---	---
346	---	---
347	---	---
348	0	0
349	0	0
350	2.8	2.8
351	---	---
352	0	0
353	0	0
354	2.5	2.5
355	0	0
356	1.2	1.2
357	0	0
358	---	---
359	0	0
360	---	---
361	---	---
362	---	---
363	---	---
364	---	---
365	---	---
366	---	---
367	---	---
368	2.8	2.8
369	0	0
370	2.8	2.8
371	0	0
372	2.8	2.8
373	0	0
374	2.8	2.8
375	0	0
376	2.8	2.8
377	0	0
378	---	---
379	---	---
380	---	---
381	---	---
382	---	---
383	---	---
384	---	---
385	---	---
386	---	---
387	---	---
388	---	---
389	---	---
390	---	---
391	---	---
392	---	---

MODE PIN NO.	REC	PLAY
393	0	0
394	0.8	0.8
395	0.9	2.8
396	---	---
397	1.8	1.8
398	0.6	0.6
399	1.0	1.0
400	1.0	1.0
401	0.5	0.5
402	0.6	0.6
403	0.6	0.6
404	1.8	1.8
405	---	---
406	---	---
407	---	---
408	---	---
409	---	---
410	---	---
411	---	---
412	---	---
413	---	---
414	1.8	1.8
415	---	---
416	---	---
417	---	---
418	---	---
419	---	---
420	---	---
421	---	---
422	---	---
423	---	---
424	0	0
425	3.0	3.0
426	3.1	3.1
427	---	---
428	1.2	1.2
429	3.2	3.2
430	---	---
431	---	---
432	---	---
433	---	---
434	3.2	3.2
435	---	---
436	---	---
437	---	---
438	---	---
439	0	0
440	0	0
441	0	0
442	1.0	0
443	0	0
444	1.0	1.0
445	1.0	1.0
446	1.0	1.0
447	0.9	0.9

MODE PIN NO.	REC	PLAY
448	0.9	0.9
449	1.0	1.0
450	1.2	1.2
451	0	0
452	3.2	3.2
453	0.6	0.7
454	0.6	0.7
455	0.6	0.6
456	0.6	0.6
457	0.6	0.6
458	0.6	0.6
459	0.6	0.9
460	0.6	0.6
461	0	0
462	0.7	0.7
463	3.2	3.2
464	3.2	3.2
465	0	0
466	3.2	3.2
467	0	0
468	3.2	3.2
469	3.2	3.2
470	0	3.1
471	3.2	3.2
472	3.2	3.2
473	3.2	3.2
474	3.2	3.2
475	0	0
476	---	---
477	3.2	3.2
478	---	---
479	---	---
480	---	---
481	---	---
482	---	---
483	---	---
484	---	---
IC3201		
1	---	---
2	---	---
3	---	---
4	---	---
5	2.8	2.8
6	---	---
7	----	---
8	---	---
9	---	---
10	2.8	2.8
11	---	---
12	---	---
13	2.8	2.8
14	---	---
15	---	---
16	---	---
17	2.8	

MODE PIN NO.	REC	PLAY
18	2.8	
19	---	---
20	---	---
21	---	---
22	---	---
23	---	---
24	---	---
25	---	---
26	---	---
27	---	---
28	---	---
29	1.7	2.8
30	2.8	2.8
31	0	0
32	2.8	2.8
33	2.8	2.8
34	---	---
35	---	---
36	---	---
37	---	---
38	---	---
39	---	---
40	---	---
41	2.8	2.8
42	---	---
43	---	---
44	---	---
45	---	---
46	---	---
47	---	---
48	---	---
49	---	---
50	0	0
51	---	---
52	0	0
53	---	---
54	---	---
55	---	---
56	---	---
57	---	---
58	---	---
59	---	---
60	---	---
61	---	---
62	---	---
63	---	---
64	---	---
65	---	---
66	---	---
67	---	---
68	---	---
69	---	---
70	---	---
71	---	---
72	---	---

MODE PIN NO.	REC	PLAY
73	---	---
74	---	---
75	---	---
76	---	---
77	---	---
78	---	---
79	---	---
80	---	---
IC3202		
1	1.8	1.8
2	---	---
3	1.8	1.8
4	---	---
5	---	---
6	0	0
7	---	---
8	---	---
9	1.8	1.8
10	---	---
11	---	---
12	0	0
13	---	---
14	---	---
15	1.8	1.8
16	---	---
17	---	---
18	---	---
19	---	---
20	---	---
21	---	---
22	---	---
23	---	---
24	---	---
25	---	---
26	---	---
27	---	---
28	---	---
29	1.8	1.8
30	---	---
31	---	---
32	0	0
33	---	---
34	---	---
35	1.8	1.8
36	---	---
37	--	---
38	0	0
39	---	---
40	---	---
41	1.8	1.8
42	---	---
43	---	---
44	1.8	1.8
45	0	0
46	1.8	1.8

MODE PIN NO.	REC	PLAY
47	0	0
48	0	0
49	---	---
50	0	0
51	---	---
52	---	---
53	1.8	1.8
54	---	---
55	---	---
56	0	0
57	---	---
58	---	---
59	1.8	1.8
60	---	---
61	---	---
62	0	0
63	---	---
64	---	---
65	---	---
66	---	---
67	---	---
68	---	---
69	---	---
70	---	---
71	---	---
72	---	---
73	---	---
74	---	---
75	---	---
76	0	0
77	---	--
78	---	----
79	1.8	1.8
80	---	--
81	---	---
82	0	0
83	---	---
84	---	---
85	1.8	1.8
86	---	---
87	---	---
88	0	0
89	---	---
90	0	0
IC3301		
1	1.0	1.0
2	0.6	0.6
3	1.0	1.0
4	0.5	0.5
5	0.6	0.6
6	0.6	0.6
7	1.9	1.9
8	---	---
9	0	0
10	---	---

MODE PIN NO.	REC	PLAY
11	2.9	2.9
12	0	0
13	0	0
14	1.9	1.9
15	1.9	1.9
16	1.9	1.9
17	0	0
18	2.9	2.9
19	0.9	0.9
20	1.0	1.0
21	0	0
22	0	0
23	0	0
24	0	0
25	---	---
26	2.9	2.9
27	0	0
28	1.2	1.2
29	0	0
30	5.0	5.0
31	0.5	0.5
32	0.6	0.6
33	0	0
34	0.1	0.1
35	0	0
36	0	0
37	0	0
38	0	0
39	---	---
40	---	---
41	5.0	5.0
42	0	0
43	---	---
44	0	0
45	0	0
46	0	0
47	---	---
48	---	---
49	0	0
50	---	---
51	1.5	1.5
52	1.5	1.5
53	1.5	1.5
54	1.5	1.5
55	2.9	2.9
56	2.9	2.9
57	0	0
58	---	---
59	1.5	1.5
60	1.5	1.5
61	1.5	1.5
62	1.1	1.1
63	0	0
64	---	---

VOLTAGE CHART
VDR-D100PL/VDR-D200PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MODE PIN NO.	REC	PLAY
IC8001		
1	1.7	1.7
2	0	0
3	0	0
4	1.8	1.8
5	2.5	2.5
6	1.8	1.8
7	2.5	2.5
8	1.8	1.8
9	2.5	2.5
10	4.3	4.3
11	1.5	1.5
12	4.2	4.2
13	8.4	8.4
14	3.5	3.5
15	3.5	3.5
16	3.2	3.2
17	1.8	1.8
18	3.5	3.5
19	1.8	1.8
20	3.5	3.5
21	1.8	1.8
22	3.5	3.5
23	2.8	2.8
24	---	---
25	0	0
26	1.4	1.4
27	1.4	1.4
28	---	---
29	2.5	2.5
30	---	---
31	0.2	0.2
32	0	0
33	1.5	1.5
34	---	---
35	0	0
36	---	---
37	0	0
38	0.8	0.8
39	1.9	1.9
40	2.8	2.8
41	2.8	2.8
42	2.8	0
43	0	2.8
44	0	0
45	0	0
46	0.5	0.5
47	0.2	0.2
48	1.5	1.5
49	0	0
50	0.4	0.4
51	1.3	1.3
52	1.4	1.4
53	1.3	1.3
54	0	0

MODE PIN NO.	REC	PLAY
55	0	0
56	0	0
57	0.9	0.9
58	2.9	2.9
59	2.8	2.8
60	2.8	2.8
61	2.9	2.9
62	2.8	2.8
63	1.8	1.8
64	1.8	1.8
IC8002		
1	3.2	3.2
2	0	0
3	0	0
4	0	0
5	2.9	2.9
Q1001		
E	7.9	7.9
C	7.9	7.9
B	0	0
Q1002		
E	0	0
C	4.8	4.8
B	0	0
Q1003		
E	2.5	2.5
C	1.0	1.0
B	2.5	2.5
Q1009		
1	4.4	4.4
2	4.4	4.4
3	3.9	3.9
4	8.1	8.1
5	4.4	4.4
6	4.4	4.4
Q1010		
S	8.0	8.0
D	4.8	4.8
G	3.4	3.4
Q1011		
1	4.7	4.7
2	8.0	8.0
3	0	0
4	3.2	3.2
5	3.2	3.2
Q1013		
1	5.1	5.1
2	8.0	8.0
3	0	0
4	2.8	2.8
5	2.8	2.8
Q1015		
S	8.0	8.0
D	1.8	1.8

MODE PIN NO.	REC	PLAY
G	6.1	6.1
Q1016		
S	8.0	8.0
D	0	0
G	6.6	6.6
Q1017		
1	5.6	5.6
2	0	0
3	0	0
4	1.2	1.2
5	1.2	1.2
Q1018		
S	0	0
D	8.0	8.0
G	0	0
Q1019		
1	5.1	5.1
2	0	0
3	0	0
4	1.8	1.8
5	1.8	1.8
Q1020		
E	8.6	8.6
C	12.0	12.0
B	9.3	9.3
Q1021		
E	0	0
C	9.3	9.3
B	0.5	0.5
Q1022		
E	0	0
C	-4.4	-4.4
B	-0.5	-0.5
Q1023		
E	0	0
C	-14.9	-14.9
B	0	0
Q1024		
E	0	0
C	0	0
B	-0.3	-0.3
Q1026		
E1	4.8	4.8
E2	0	0
C1	4.8	4.8
C2	4.7	4.7
B1	4.7	4.7
B2	0	0
Q1030		
E	0	0
C	0	0
B	2.8	2.8
Q1031		
E	2.8	2.8
C	2.8	2.8

MODE PIN NO.	REC	PLAY
B	0	0
Q1032		
E	0	0
C	0	0
B	0.6	0.6
Q1035		
E	12.0	12.0
C	11.9	11.9
B	11.3	11.3
Q1036		
E	0	0
C	0	0
B	2.8	2.8
Q1037		
E	-14.9	-14.9
C	-14.9	-14.9
B	2.8	2.8
Q1040		
E	4.8	4.8
C	4.7	4.7
B	0	0
Q1041		
E	12.0	12.0
C	11.9	11.9
B	0.5	0.5
Q1042		
E	2.8	2.8
C	2.8	2.8
B	0.5	0.5
Q1043		
E	-7.0	-7.0
C	-7.0	-7.0
B	2.8	2.8
Q1044		
E	0	0
C	0	0
B	2.8	2.8
Q3001		
E	0	3.2
C	3.2	3.2
B	1.0	0
TP1	4.8	4.8
TP2	3.2	3.2
TP3	2.8	2.8
TP4	1.8	1.8
TP5	1.2	1.2
TP6	4.4	4.4
TP11	11.9	11.9
TP12	11.9	11.9
TP13	-6.9	-6.9
TP14	-14.9	-14.9
TP15	0	0
TP17	0	0
TP20	0	0

MODE PIN NO.	REC	PLAY
TP21	8.0	8.1
TP22	7.9	8.1
TP23	2.8	2.8
TP3001	3.2	3.2
TP3002	3.2	3.2
TP3003	0.1	0.1
TP3004	0	0
TP3005	2.8	2.8
TP3006	2.8	2.8
TP3007	2.8	2.8
TP3008	2.7	2.8
TP3009	2.8	2.8
TP3010	0	0
TP3011	0	0
TP3012	2.8	2.8
TP3013	2.8	2.8
TP3014	2.8	2.8
TP3015	2.8	2.8
TP3016	0	0
TP3017	1.7	2.8
TP3018	2.8	2.8
TP3019	2.8	2.8
TP3020	0	0
TP3021	0	0
TP3022	0.8	0.8
TP3023	0.9	2.8
TP3024	0	0
TP3025	0	0
TP3027	0.7	0.7
TP3029	1.8	1.8
TP3701	0	0
TP3702	0	0
TP3703	0	0
TP3704	0	0
TP3705	0	0
TP3706	0	0
TP3901	0	0
TP3903	3.2	32
TP3904	3.2	.3.2
TP3905	0	0
TP3906	2.8	2.8
TP8001	1.4	1.1
TP8002	1.4	1.1
TP8003	1.4	1.2
TP8004	1.3	1.3
TP8005	2.5	2.5
TP8006	2.5	2.5
TP8007	2.5	2.5
TP8008	4.3	4.3
TP8009	1.4	1.4

VOLTAGE CHART
VDR-D100PL/VDR-D200PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

LCD BACKLIGHT P.C.B.

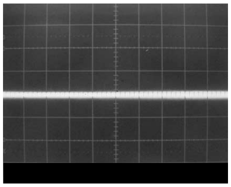
MODE PIN NO.	REC	PLAY
Q8101		
E	0	0
C	0.1	0.1
B	3.1	3.1
Q8102		
E	0	0
C	0.1	0.1
B	1.9	1.9
Q8103		
E	12.0	12.0
C	11.9	11.9
B	11.2	11.2
Q8104		
E	3.2	3.2
C	3.1	3.1
B	2.4	2.4
Q8105		
E	7.3	7.3
C	11.9	11.9
B	7.9	7.9
Q8106		
E	0	0
C	7.9	7.9
B	0.5	0.5
Q8107		
E	0	0
C	0.1	0.1
B	1.9	1.9
Q8108		
E	4.9	4.9
C	4.9	4.9
B	4.2	4.2
TP8101	2.5	2.5
TP8102	2.5	2.5
TP8103	2.5	2.5
TP8104	4.3	4.3
TP8105	1.3	1.3
TP8106	4.9	4.9

FRONT P.C.B.

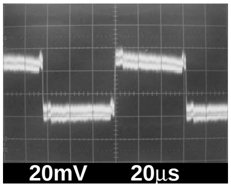
MODE PIN NO.	REC	PLAY
IC4801		
1	2.5	2.5
2	2.5	2.5
3	2.5	2.5
4	0	0
5	2.5	2.5
6	2.5	2.5
7	2.5	2.5
8	4.8	4.8
Q4301		
E	0	0
C	3.3	3.3
B	0	0
Q4302		
E	0	0
C	3.0	3.0
B	0	0
Q4305		
E	0	0
C	0	0
B	0	0
Q4306		
E	4.8	4.8
C	0	0
B	4.7	4.7
Q4307		
E	0	0
C	4.7	4.7
B	0	0
Q4801		
E	4.1	4.1
C	4.8	4.8
B	4.7	4.7
Q6501		
E	3.9	3.9
C	4.8	4.8
B	0	0
Q6502		
E	2.3	2.3
C	4.8	4.8
B	2.8	2.8

VOLTAGE CHART
VDR-D100PL/VDR-D200PL

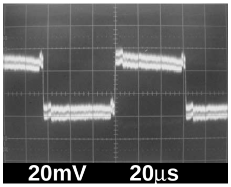
WF1



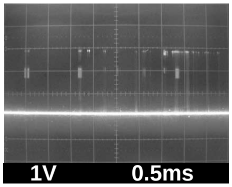
WF2



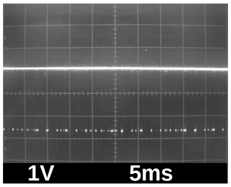
WF3



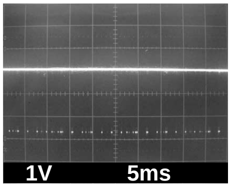
WF4



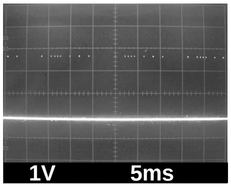
WF5



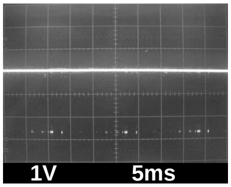
WF6



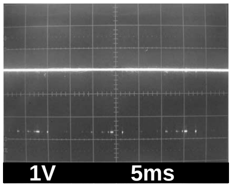
WF7



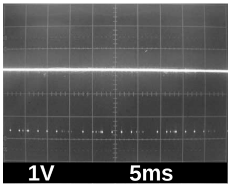
WF8



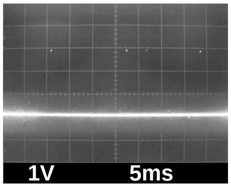
WF9



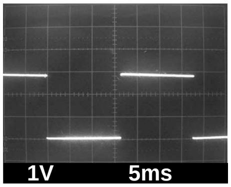
WF10



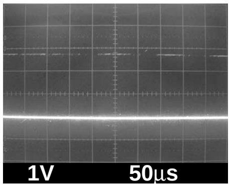
WF11



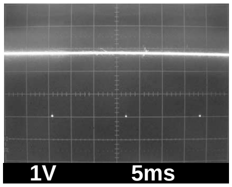
WF12



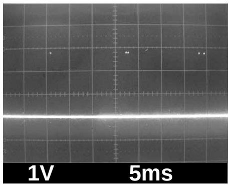
WF13



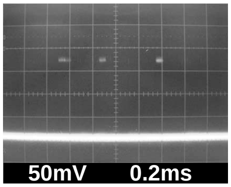
WF14



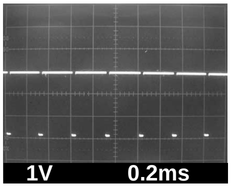
WF15



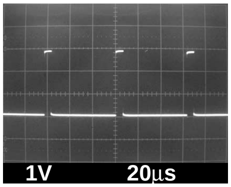
WF16



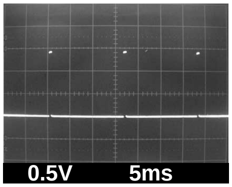
WF17



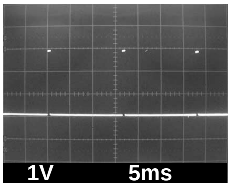
WF18



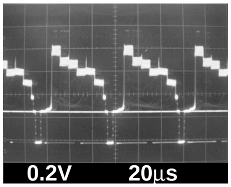
WF19



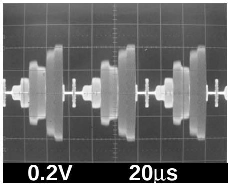
WF20



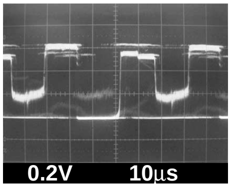
WF21



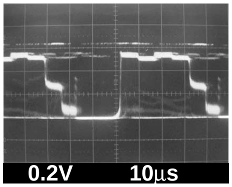
WF22



WF23



WF24



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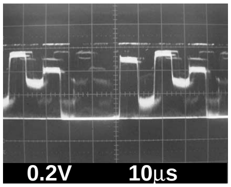
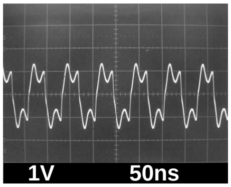
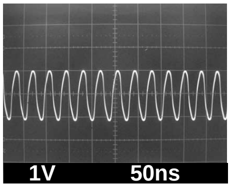


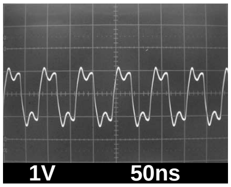
WF26



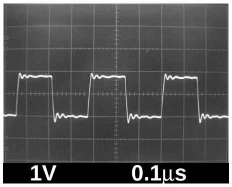
WF27



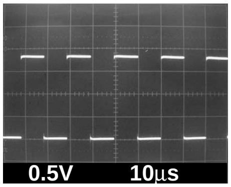
WF28



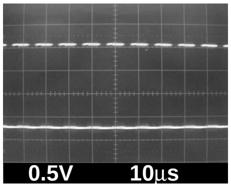
WF29



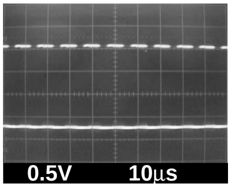
WF30



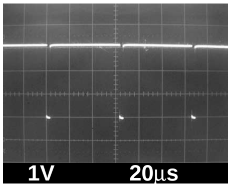
WF31



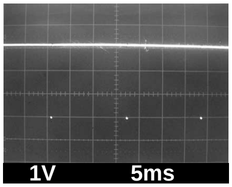
WF32



WF33



WF34



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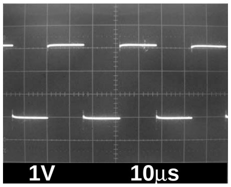
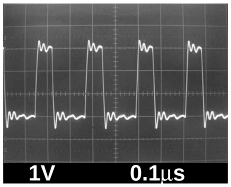
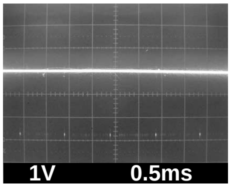


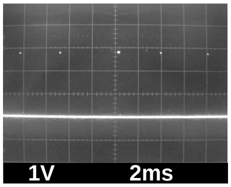
WF36



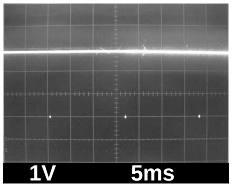
WF37



WF38



WF39



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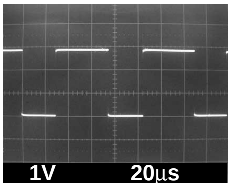
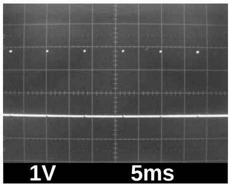
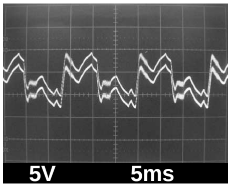


WF41



WF42



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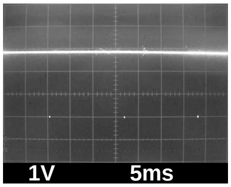

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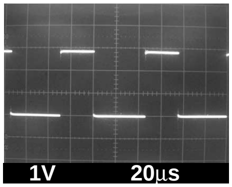
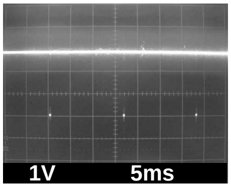
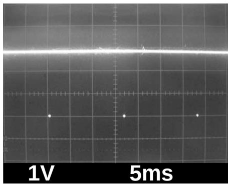


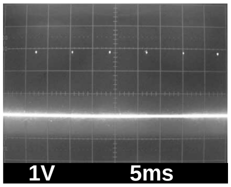
WF45



WF46



WF47



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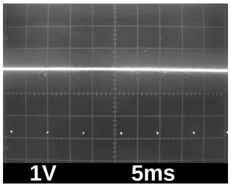

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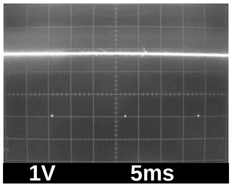
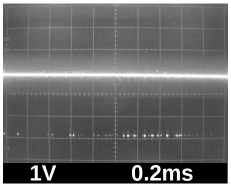
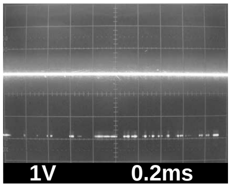


WF50



WF51



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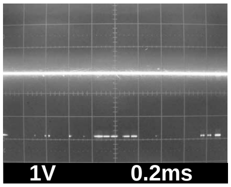

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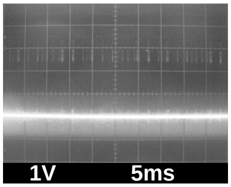

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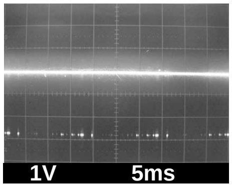

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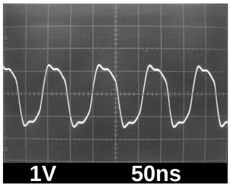

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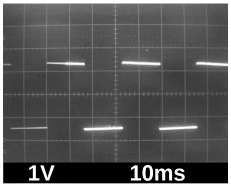

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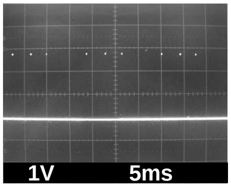

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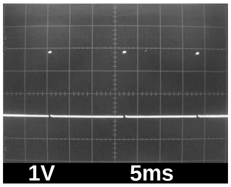
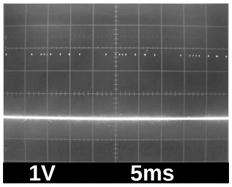
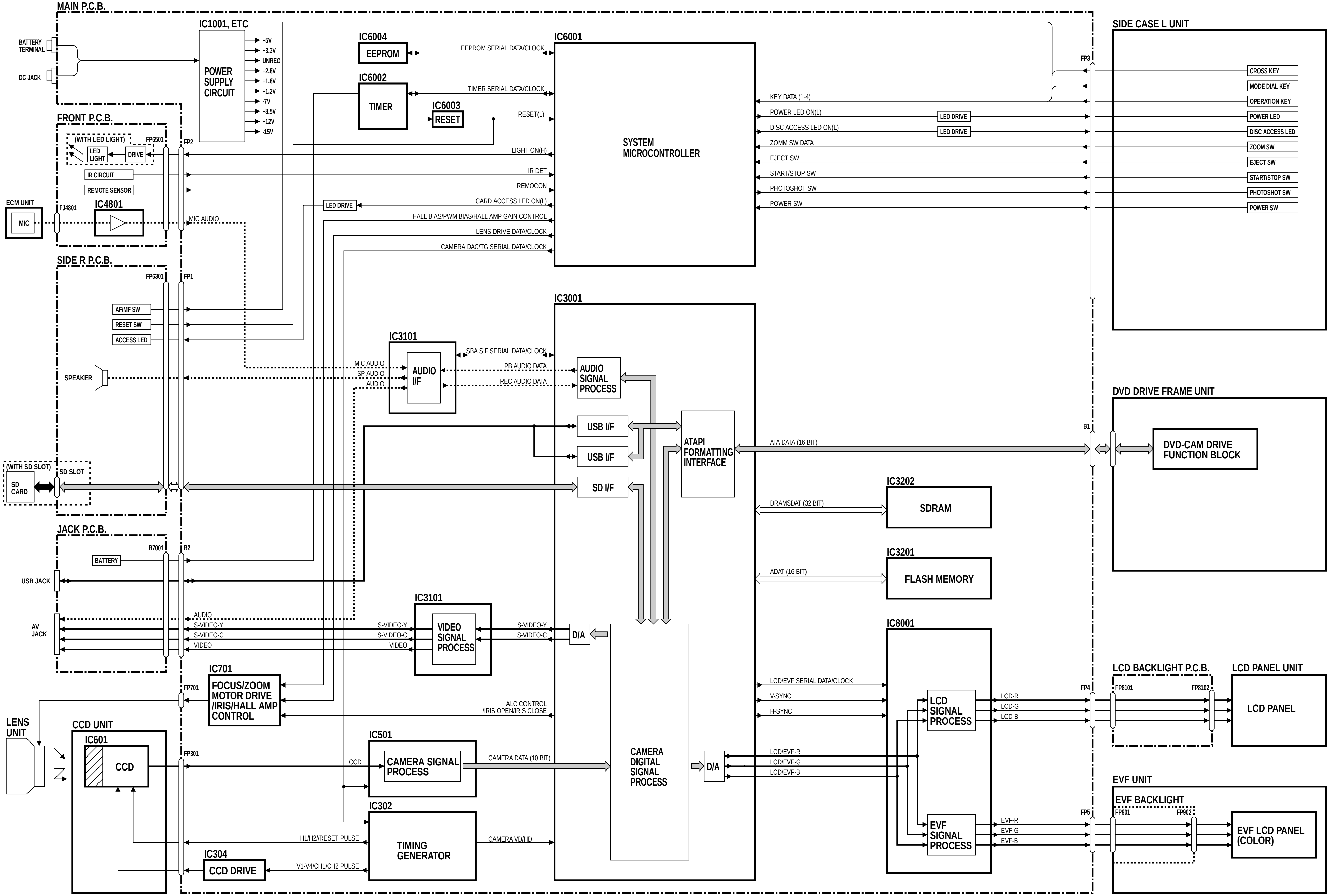


WF59

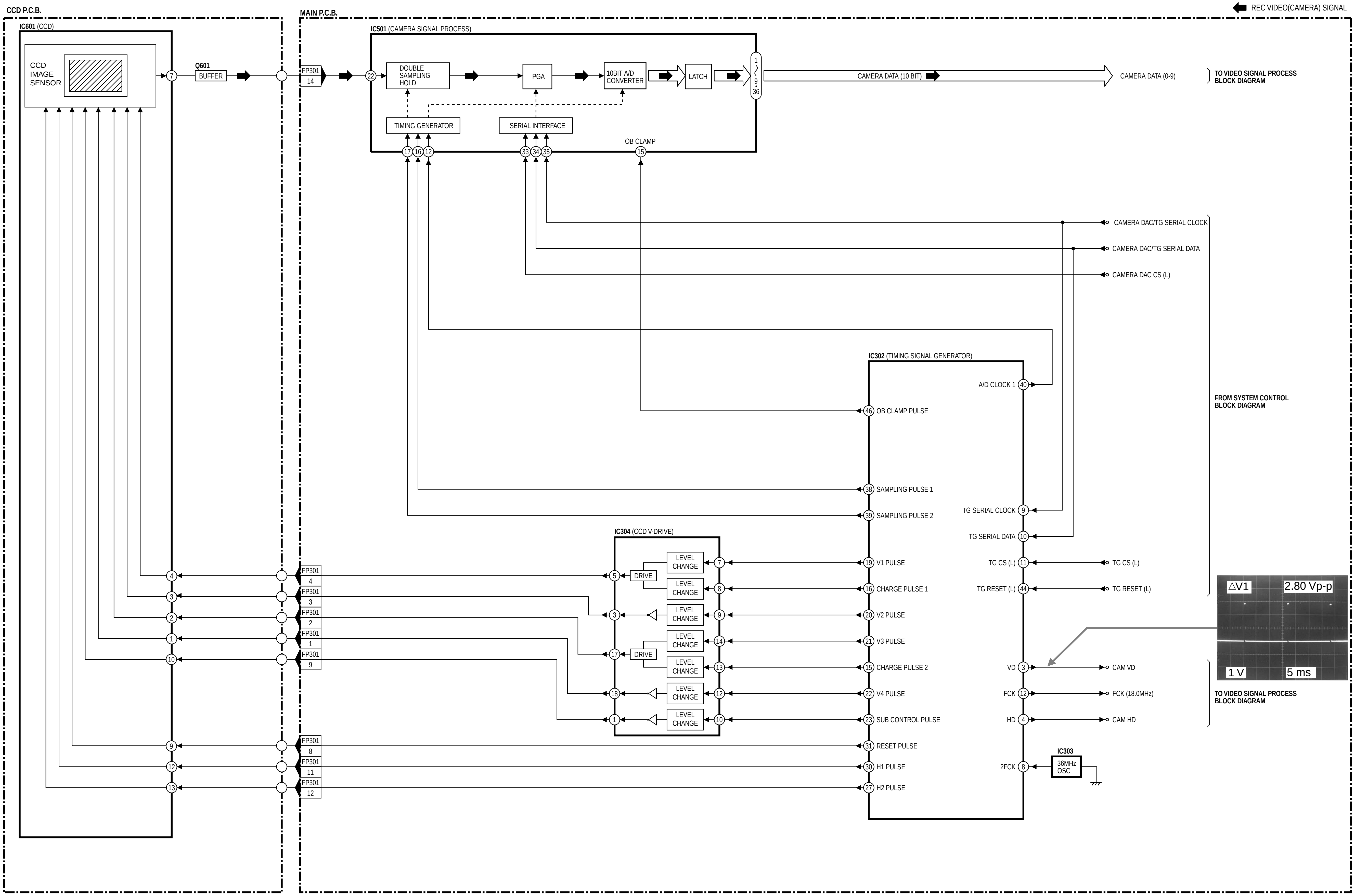


OVERALL BLOCK DIAGRAM

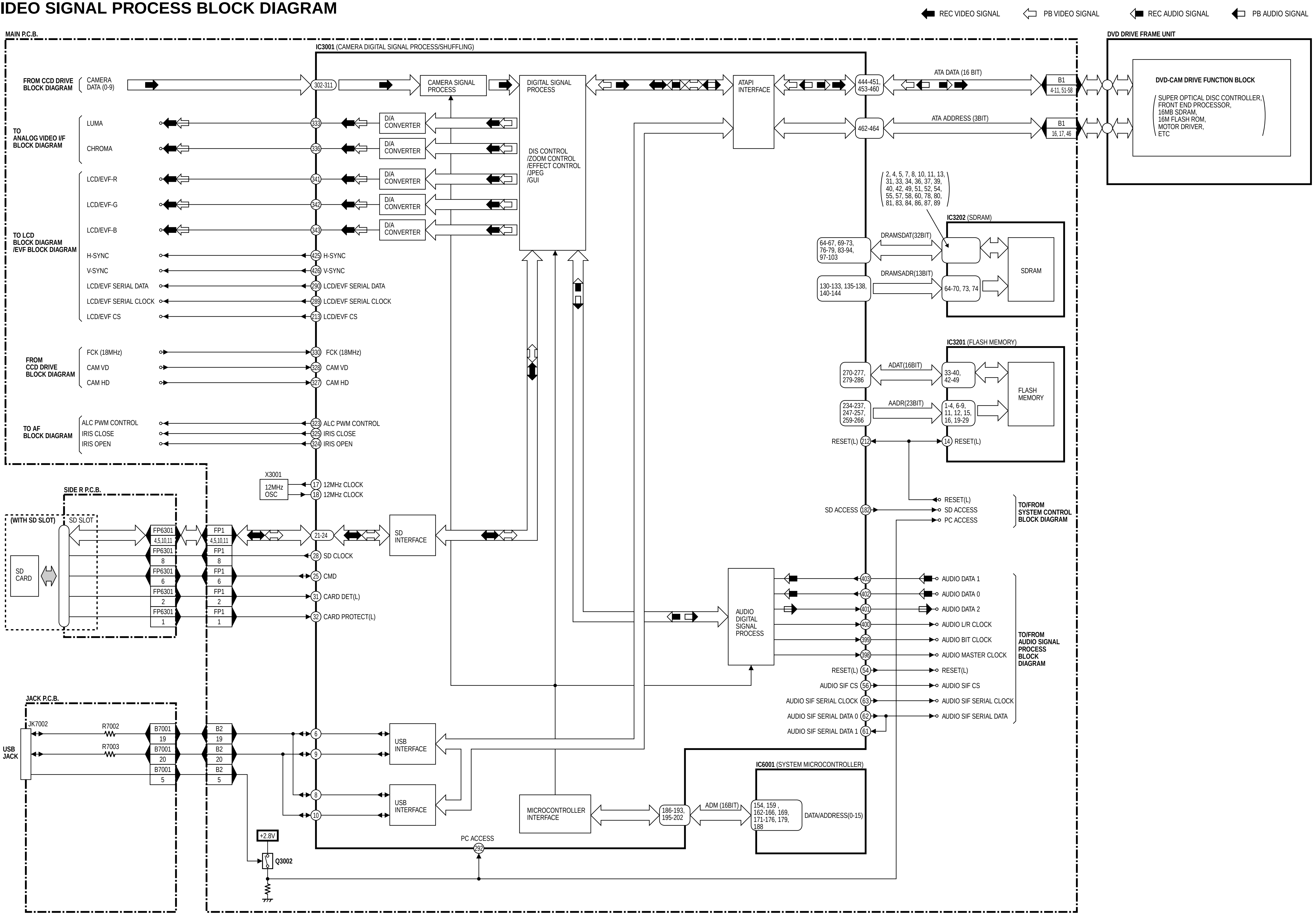


MAIN P.C.B.
BATTERY TERMINAL
DC JACK
IC1001, ETC
POWER SUPPLY CIRCUIT
+5V
+3.3V
UNREG
+2.8V
+1.8V
+1.2V
-7V
+8.5V
+12V
-15V
IC6004
EEPROM
EEPROM SERIAL DATA/CLOCK
IC6002
TIMER
TIMER SERIAL DATA/CLOCK
IC6003
RESET
RESET(L)
IC6001
SYSTEM MICROCONTROLLER
FRONT P.C.B.
(WITH LED LIGHT)
FP6501
FP2
LED LIGHT
DRIVE
IR CIRCUIT
REMOTE SENSOR
ECM UNIT
MIC
FJ4801
IC4801
LIGHT ON(H)
IR DET
REMOCON
LED DRIVE
CARD ACCESS LED ON(L)
MIC AUDIO
HALL BIAS/PWM BIAS/HALL AMP GAIN CONTROL
LENS DRIVE DATA/CLOCK
CAMERA DAC/TG SERIAL DATA/CLOCK
KEY DATA (1-4)
POWER LED ON(L)
DISC ACCESS LED ON(L)
LED DRIVE
LED DRIVE
ZOMM SW DATA
EJECT SW
START/STOP SW
PHOTOSHOT SW
POWER SW
FP3
SIDE CASE L UNIT
CROSS KEY
MODE DIAL KEY
OPERATION KEY
POWER LED
DISC ACCESS LED
ZOOM SW
EJECT SW
START/STOP SW
PHOTOSHOT SW
POWER SW
SIDE R P.C.B.
FP6301
FP1
AF/MF SW
RESET SW
ACCESS LED
SPEAKER
IC3101
AUDIO I/F
MIC AUDIO
SP AUDIO
AUDIO
SBA SIF SERIAL DATA/CLOCK
PB AUDIO DATA
REC AUDIO DATA
IC3001
AUDIO SIGNAL PROCESS
USB I/F
USB I/F
SD I/F
ATAPI FORMATTING INTERFACE
ATA DATA (16 BIT)
B1
DVD DRIVE FRAME UNIT
DVD-CAM DRIVE FUNCTION BLOCK
(WITH SD SLOT)
SD CARD
SD SLOT
IC3202
SDRAM
DRAMSDAT (32 BIT)
IC3201
FLASH MEMORY
ADAT (16 BIT)
JACK P.C.B.
B7001
B2
BATTERY
USB JACK
AV JACK
AUDIO
S-VIDEO-Y
S-VIDEO-C
VIDEO
IC3101
VIDEO SIGNAL PROCESS
S-VIDEO-Y
S-VIDEO-C
VIDEO
S-VIDEO-Y
S-VIDEO-C
D/A
IC8001
LCD/EVF SERIAL DATA/CLOCK
V-SYNC
H-SYNC
LCD SIGNAL PROCESS
LCD-R
LCD-G
LCD-B
FP4
LCD BACKLIGHT P.C.B.
FP8101
FP8102
LCD PANEL UNIT
LCD PANEL
IC701
FOCUS/ZOOM MOTOR DRIVE /IRIS/HALL AMP CONTROL
FP701
ALC CONTROL /IRIS OPEN/IRIS CLOSE
LENS UNIT
CCD UNIT
IC601
CCD
FP301
IC501
CAMERA SIGNAL PROCESS
CCD
CAMERA DATA (10 BIT)
CAMERA DIGITAL SIGNAL PROCESS
D/A
LCD/EVF-R
LCD/EVF-G
LCD/EVF-B
IC302
TIMING GENERATOR
H1/H2//RESET PULSE
CAMERA VD/HD
IC304
CCD DRIVE
V1-V4/CH1/CH2 PULSE
EVF SIGNAL PROCESS
EVF-R
EVF-G
EVF-B
FP5
EVF UNIT
EVF BACKLIGHT
FP901
FP902
EVF LCD PANEL (COLOR)

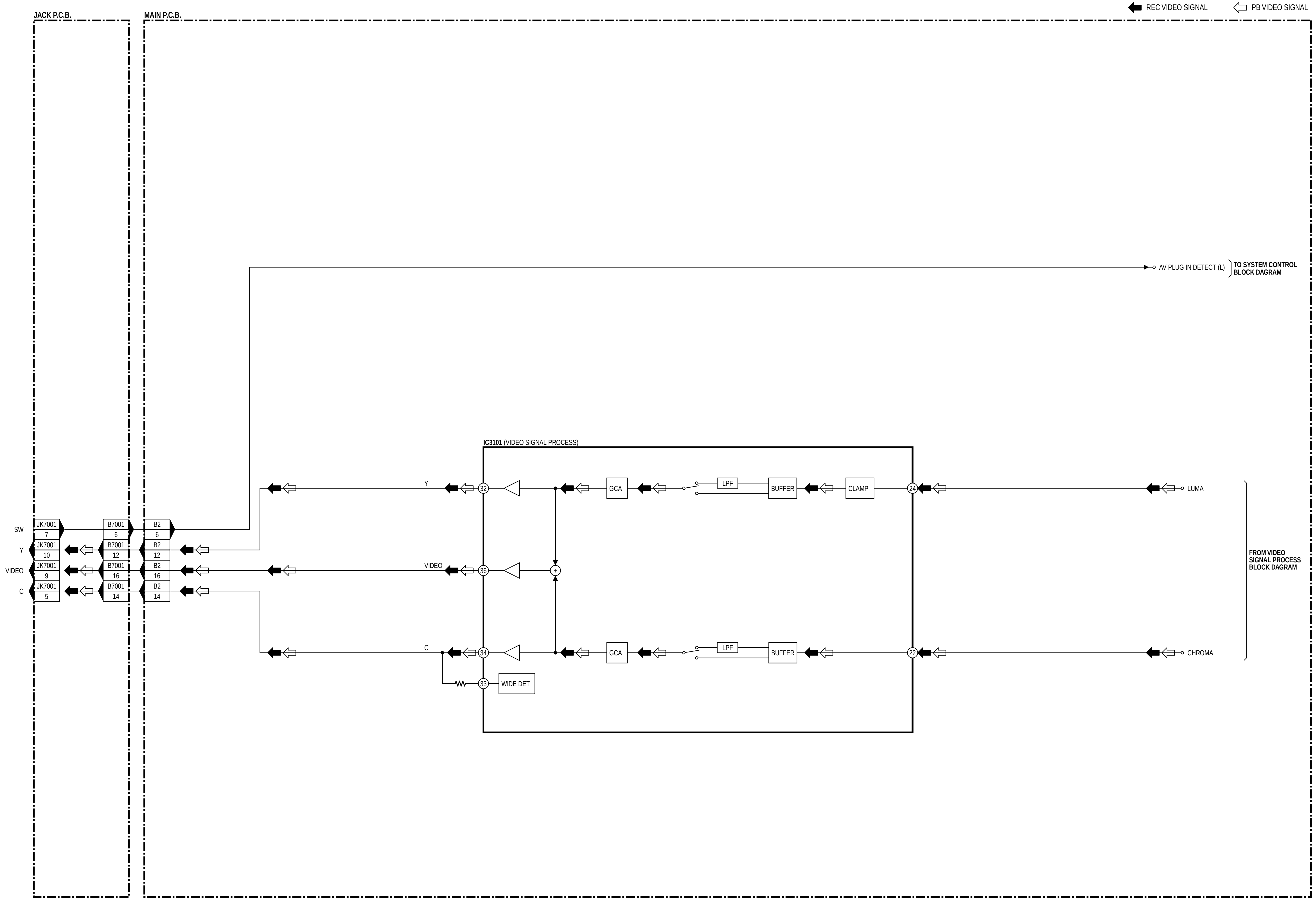
CCD DRIVE BLOCK DIAGRAM


REC VIDEO(CAMERA) SIGNAL
CCD P.C.B.
MAIN P.C.B.
IC601 (CCD)
CCD IMAGE SENSOR
Q601
BUFFER
FP301
14
IC501 (CAMERA SIGNAL PROCESS)
DOUBLE SAMPLING HOLD
PGA
10BIT A/D CONVERTER
LATCH
1 ~ 9 36
CAMERA DATA (10 BIT)
CAMERA DATA (0-9)
TO VIDEO SIGNAL PROCESS BLOCK DIAGRAM
TIMING GENERATOR
SERIAL INTERFACE
OB CLAMP
CAMERA DAC/TG SERIAL CLOCK
CAMERA DAC/TG SERIAL DATA
CAMERA DAC CS (L)
FROM SYSTEM CONTROL BLOCK DIAGRAM
IC302 (TIMING SIGNAL GENERATOR)
A/D CLOCK 1
OB CLAMP PULSE
SAMPLING PULSE 1
SAMPLING PULSE 2
TG SERIAL CLOCK
TG SERIAL DATA
TG CS (L)
TG RESET (L)
V1 PULSE
CHARGE PULSE 1
V2 PULSE
V3 PULSE
CHARGE PULSE 2
V4 PULSE
SUB CONTROL PULSE
RESET PULSE
H1 PULSE
H2 PULSE
VD
FCK
HD
2FCK
CAM VD
FCK (18.0MHz)
CAM HD
IC303
36MHz OSC
IC304 (CCD V-DRIVE)
LEVEL CHANGE
DRIVE
FP301 4
FP301 3
FP301 2
FP301 1
FP301 9
FP301 8
FP301 11
FP301 12
△V1
2.80 Vp-p
1 V
5 ms
TO VIDEO SIGNAL PROCESS BLOCK DIAGRAM

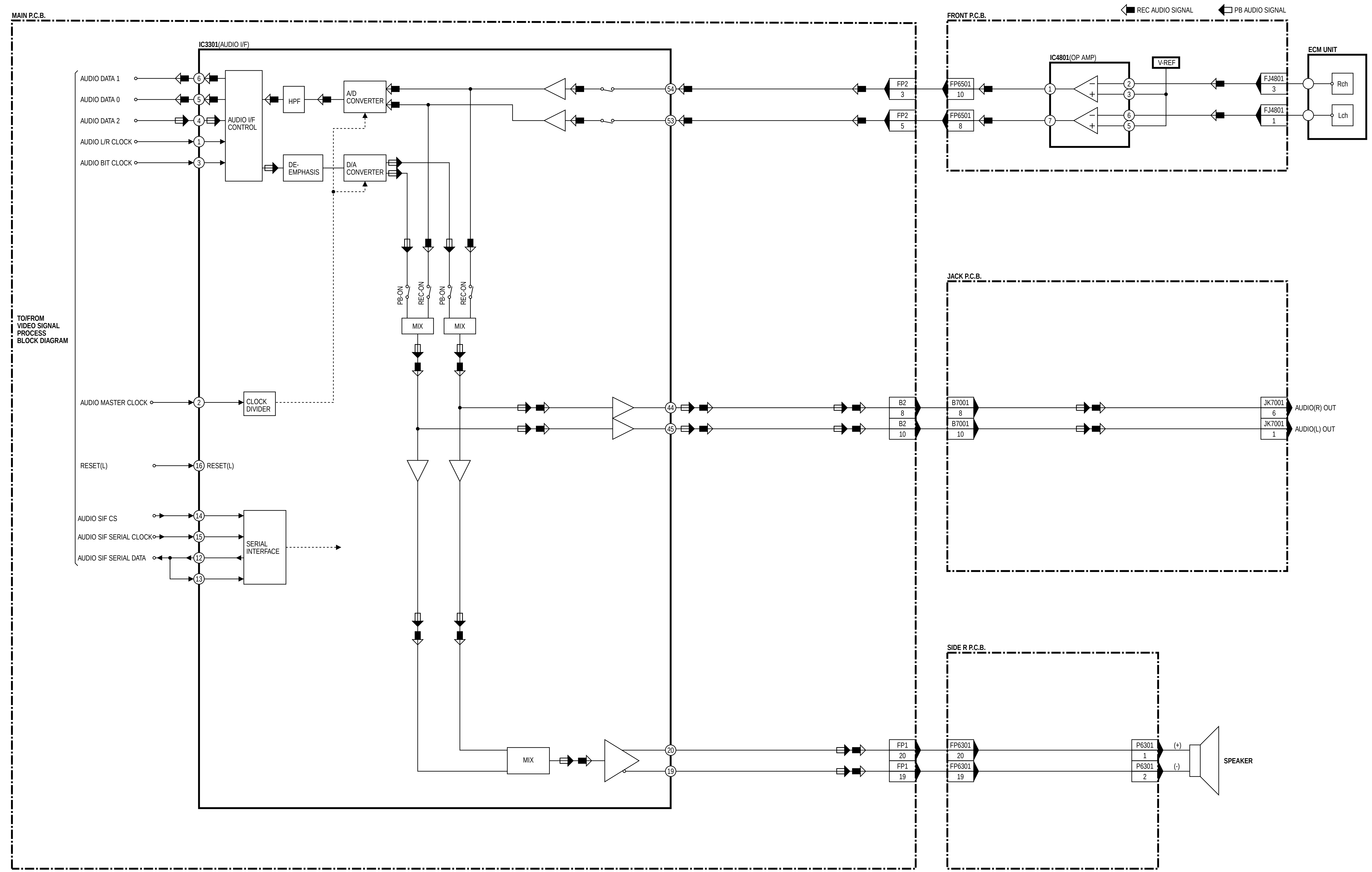
VIDEO SIGNAL PROCESS BLOCK DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
MAIN P.C.B.
IC3001 (CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING)
FROM CCD DRIVE BLOCK DIAGRAM
CAMERA DATA (0-9)
302-311
CAMERA SIGNAL PROCESS
DIGITAL SIGNAL PROCESS
DIS CONTROL /ZOOM CONTROL /EFFECT CONTROL /JPEG /GUI
ATAPI INTERFACE
444-451, 453-460
ATA DATA (16 BIT)
B1
4-11, 51-58
462-464
ATA ADDRESS (3BIT)
B1
16, 17, 46
DVD DRIVE FRAME UNIT
DVD-CAM DRIVE FUNCTION BLOCK
SUPER OPTICAL DISC CONTROLLER, FRONT END PROCESSOR, 16MB SDRAM, 16M FLASH ROM, MOTOR DRIVER, ETC
TO ANALOG VIDEO I/F BLOCK DIAGRAM
LUMA
333
CHROMA
336
D/A CONVERTER
TO LCD BLOCK DIAGRAM /EVF BLOCK DIAGRAM
LCD/EVF-R
341
LCD/EVF-G
342
LCD/EVF-B
343
H-SYNC
425
V-SYNC
426
LCD/EVF SERIAL DATA
290
LCD/EVF SERIAL CLOCK
289
LCD/EVF CS
213
FROM CCD DRIVE BLOCK DIAGRAM
FCK (18MHz)
330
CAM VD
328
CAM HD
327
TO AF BLOCK DIAGRAM
ALC PWM CONTROL
323
IRIS CLOSE
325
IRIS OPEN
324
2, 4, 5, 7, 8, 10, 11, 13, 31, 33, 34, 36, 37, 39, 40, 42, 49, 51, 52, 54, 55, 57, 58, 60, 78, 80, 81, 83, 84, 86, 87, 89
IC3202 (SDRAM)
64-67, 69-73, 76-79, 83-94, 97-103
DRAMSDAT(32BIT)
130-133, 135-138, 140-144
DRAMSADR(13BIT)
64-70, 73, 74
SDRAM
IC3201 (FLASH MEMORY)
270-277, 279-286
ADAT(16BIT)
33-40, 42-49
234-237, 247-257, 259-266
AADR(23BIT)
1-4, 6-9, 11, 12, 15, 16, 19-29
FLASH MEMORY
RESET(L)
212
14
RESET(L)
X3001
12MHz OSC
17
12MHz CLOCK
18
12MHz CLOCK
RESET(L)
SD ACCESS
182
SD ACCESS
PC ACCESS
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
SIDE R P.C.B.
(WITH SD SLOT)
SD SLOT
SD CARD
FP6301
4,5,10,11
8
6
2
1
FP1
4,5,10,11
8
6
2
1
21-24
SD INTERFACE
28
SD CLOCK
25
CMD
31
CARD DET(L)
32
CARD PROTECT(L)
AUDIO DIGITAL SIGNAL PROCESS
403
AUDIO DATA 1
402
AUDIO DATA 0
401
AUDIO DATA 2
400
AUDIO L/R CLOCK
399
AUDIO BIT CLOCK
398
AUDIO MASTER CLOCK
54
RESET(L)
56
AUDIO SIF CS
63
AUDIO SIF SERIAL CLOCK
62
AUDIO SIF SERIAL DATA 0
AUDIO SIF SERIAL DATA
61
AUDIO SIF SERIAL DATA 1
TO/FROM AUDIO SIGNAL PROCESS BLOCK DIAGRAM
JACK P.C.B.
JK7002
USB JACK
R7002
R7003
B7001
19
20
5
B2
19
20
5
6
9
8
10
USB INTERFACE
USB INTERFACE
+2.8V
Q3002
MICROCONTROLLER INTERFACE
186-193, 195-202
ADM (16BIT)
IC6001 (SYSTEM MICROCONTROLLER)
154, 159, 162-166, 169, 171-176, 179, 188
DATA/ADDRESS(0-15)
PC ACCESS
292

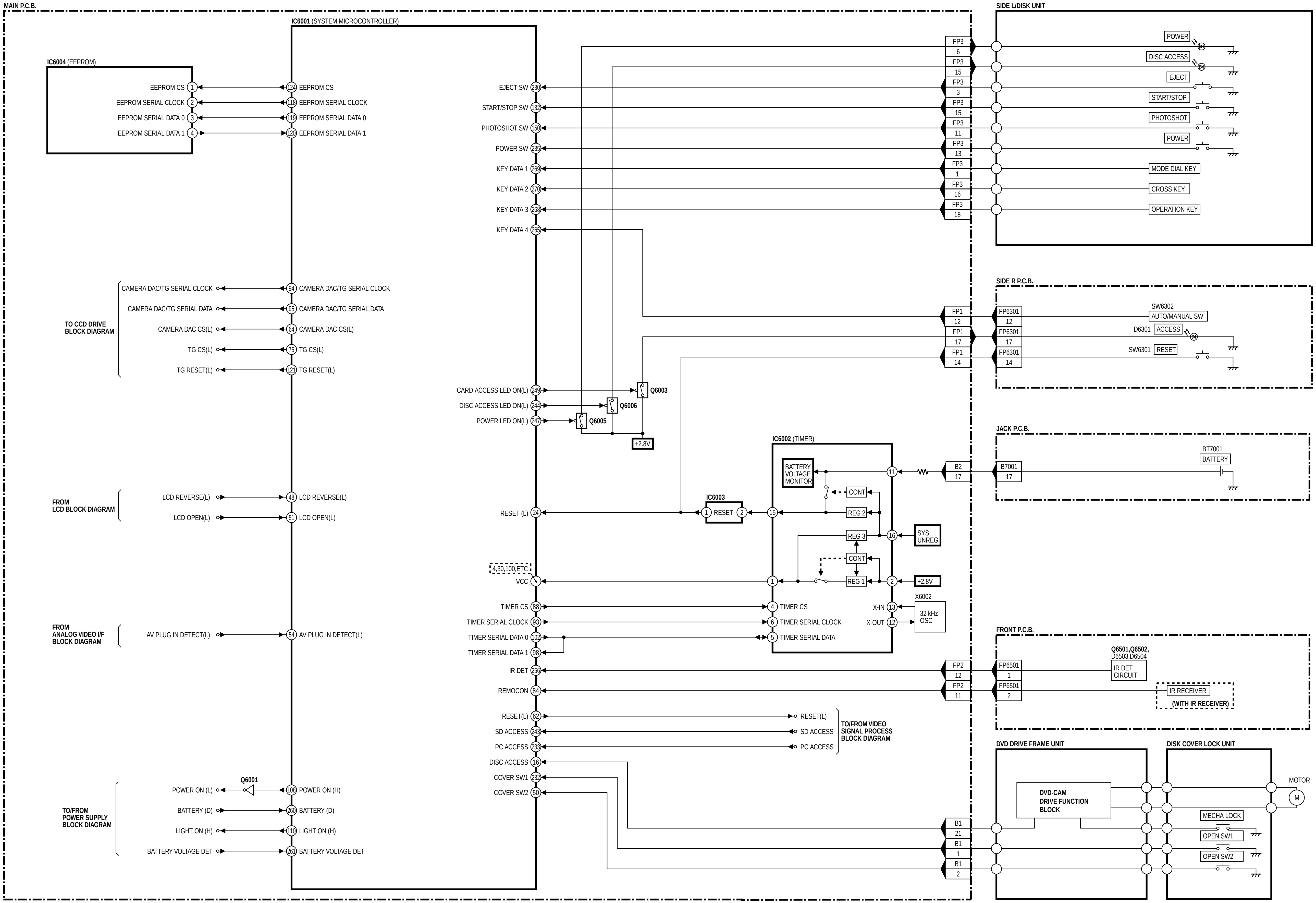
ANALOG VIDEO I/F BLOCK DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
JACK P.C.B.
MAIN P.C.B.
AV PLUG IN DETECT (L)
TO SYSTEM CONTROL BLOCK DAGRAM
IC3101 (VIDEO SIGNAL PROCESS)
Y
VIDEO
C
32
36
34
33
24
22
GCA
LPF
BUFFER
CLAMP
GCA
LPF
BUFFER
WIDE DET
+
LUMA
CHROMA
FROM VIDEO SIGNAL PROCESS BLOCK DAGRAM
SW
Y
VIDEO
C
JK7001
7
JK7001
10
JK7001
9
JK7001
5
B7001
6
B7001
12
B7001
16
B7001
14
B2
6
B2
12
B2
16
B2
14

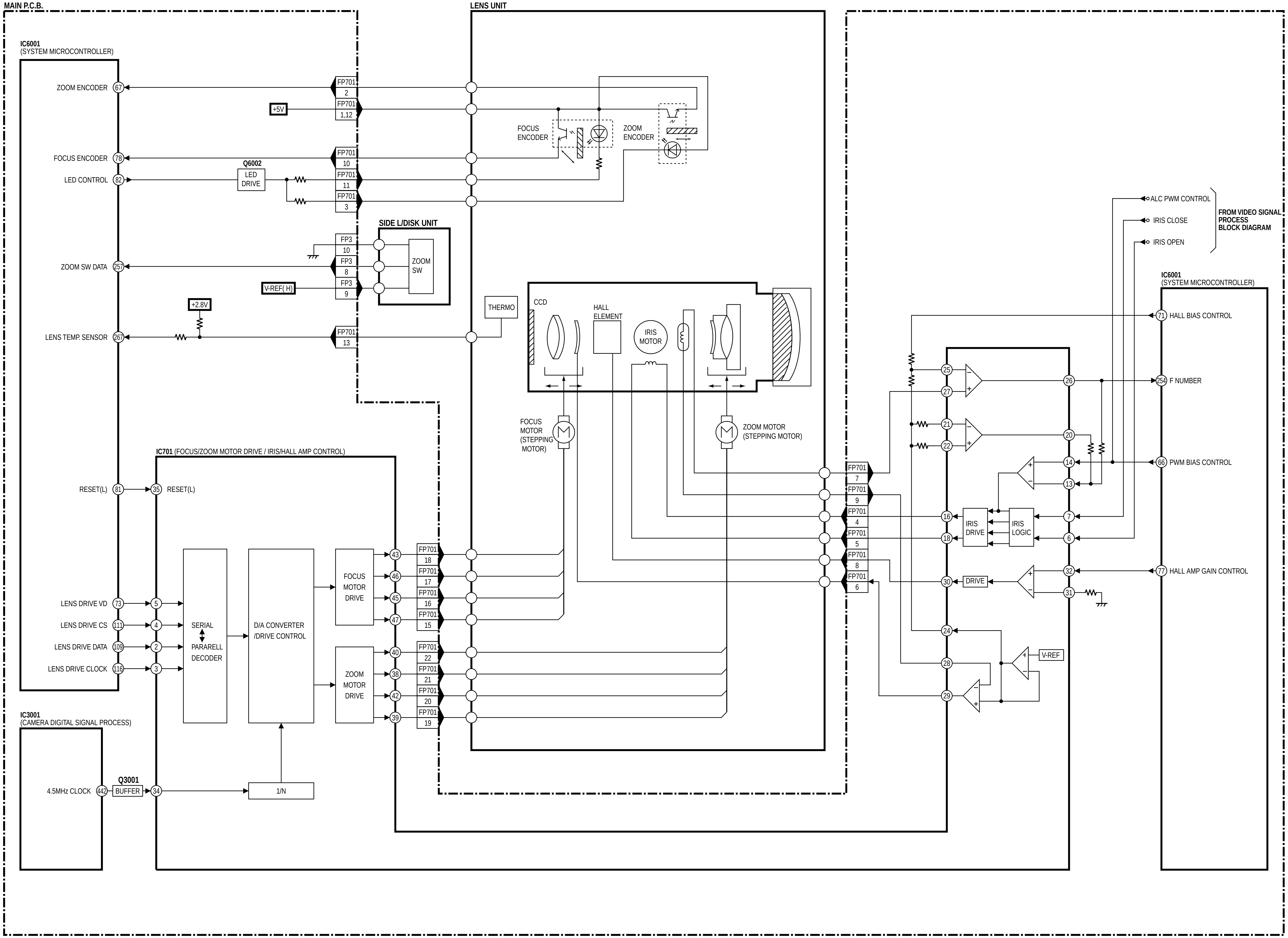
AUDIO SIGNAL PROCESS BLOCK DIAGRAM


REC AUDIO SIGNAL
PB AUDIO SIGNAL
MAIN P.C.B.
IC3301(AUDIO I/F)
FRONT P.C.B.
IC4801(OP AMP)
V-REF
ECM UNIT
Rch
Lch
FJ4801 3
FJ4801 1
FP6501 10
FP6501 8
FP2 3
FP2 5
AUDIO DATA 1
AUDIO DATA 0
AUDIO DATA 2
AUDIO L/R CLOCK
AUDIO BIT CLOCK
AUDIO I/F CONTROL
HPF
A/D CONVERTER
DE-EMPHASIS
D/A CONVERTER
PB-ON
REC-ON
PB-ON
REC-ON
MIX
MIX
TO/FROM VIDEO SIGNAL PROCESS BLOCK DIAGRAM
AUDIO MASTER CLOCK
CLOCK DIVIDER
RESET(L)
RESET(L)
AUDIO SIF CS
AUDIO SIF SERIAL CLOCK
AUDIO SIF SERIAL DATA
SERIAL INTERFACE
JACK P.C.B.
B2 8
B2 10
B7001 8
B7001 10
JK7001 6
JK7001 1
AUDIO(R) OUT
AUDIO(L) OUT
SIDE R P.C.B.
MIX
FP1 20
FP1 19
FP6301 20
FP6301 19
P6301 1
P6301 2
(+)
(-)
SPEAKER

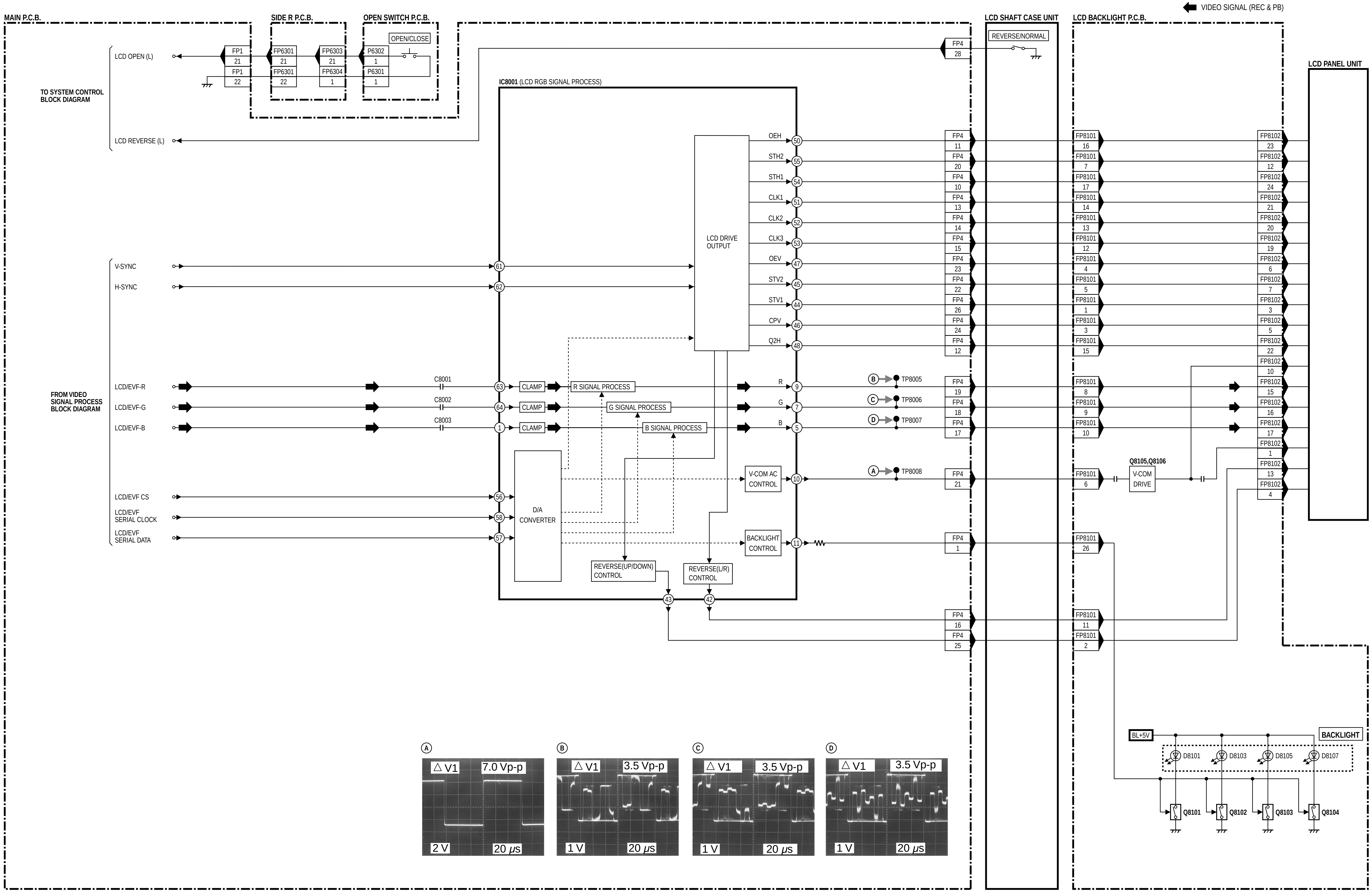
SYSTEM CONTROL BLOCK DIAGRAM


MAIN P.C.B.
IC6001 (SYSTEM MICROCONTROLLER)
IC6004 (EEPROM)
EEPROM CS 1
EEPROM SERIAL CLOCK 2
EEPROM SERIAL DATA 0 3
EEPROM SERIAL DATA 1 4
124 EEPROM CS
118 EEPROM SERIAL CLOCK
119 EEPROM SERIAL DATA 0
120 EEPROM SERIAL DATA 1
EJECT SW 230
START/STOP SW 132
PHOTOSHOT SW 150
POWER SW 235
KEY DATA 1 269
KEY DATA 2 270
KEY DATA 3 268
KEY DATA 4 265
TO CCD DRIVE BLOCK DIAGRAM
CAMERA DAC/TG SERIAL CLOCK
CAMERA DAC/TG SERIAL DATA
CAMERA DAC CS(L)
TG CS(L)
TG RESET(L)
94 CAMERA DAC/TG SERIAL CLOCK
95 CAMERA DAC/TG SERIAL DATA
64 CAMERA DAC CS(L)
75 TG CS(L)
121 TG RESET(L)
CARD ACCESS LED ON(L) 249
DISC ACCESS LED ON(L) 244
POWER LED ON(L) 247
Q6003
Q6006
Q6005
+2.8V
FROM LCD BLOCK DIAGRAM
LCD REVERSE(L)
LCD OPEN(L)
48 LCD REVERSE(L)
51 LCD OPEN(L)
RESET (L) 24
IC6003
1 RESET 2
4,30,100,ETC.
VCC
TIMER CS 88
TIMER SERIAL CLOCK 93
TIMER SERIAL DATA 0 102
TIMER SERIAL DATA 1 98
FROM ANALOG VIDEO I/F BLOCK DIAGRAM
AV PLUG IN DETECT(L)
54 AV PLUG IN DETECT(L)
IR DET 256
REMOCON 84
RESET(L) 62
SD ACCESS 243
PC ACCESS 233
DISC ACCESS 16
COVER SW1 232
COVER SW2 50
RESET(L)
SD ACCESS
PC ACCESS
TO/FROM VIDEO SIGNAL PROCESS BLOCK DIAGRAM
TO/FROM POWER SUPPLY BLOCK DIAGRAM
Q6001
POWER ON (L)
BATTERY (D)
LIGHT ON (H)
BATTERY VOLTAGE DET
108 POWER ON (H)
260 BATTERY (D)
110 LIGHT ON (H)
261 BATTERY VOLTAGE DET
IC6002 (TIMER)
BATTERY VOLTAGE MONITOR
CONT
REG 2
REG 3
CONT
REG 1
11
15
16
SYS UNREG
1
2
+2.8V
4 TIMER CS
6 TIMER SERIAL CLOCK
5 TIMER SERIAL DATA
X-IN 13
X-OUT 12
X6002
32 kHz OSC
FP3 6
FP3 15
FP3 3
FP3 15
FP3 11
FP3 13
FP3 1
FP3 16
FP3 18
SIDE L/DISK UNIT
POWER
DISC ACCESS
EJECT
START/STOP
PHOTOSHOT
POWER
MODE DIAL KEY
CROSS KEY
OPERATION KEY
SIDE R P.C.B.
FP1 12
FP1 17
FP1 14
FP6301 12
FP6301 17
FP6301 14
SW6302
AUTO/MANUAL SW
D6301
ACCESS
SW6301
RESET
JACK P.C.B.
B2 17
B7001 17
BT7001
BATTERY
FRONT P.C.B.
FP2 12
FP2 11
FP6501 1
FP6501 2
Q6501,Q6502, D6503,D6504
IR DET CIRCUIT
IR RECEIVER
(WITH IR RECEIVER)
DVD DRIVE FRAME UNIT
DISK COVER LOCK UNIT
DVD-CAM DRIVE FUNCTION BLOCK
MOTOR
M
MECHA LOCK
OPEN SW1
OPEN SW2
B1 21
B1 1
B1 2

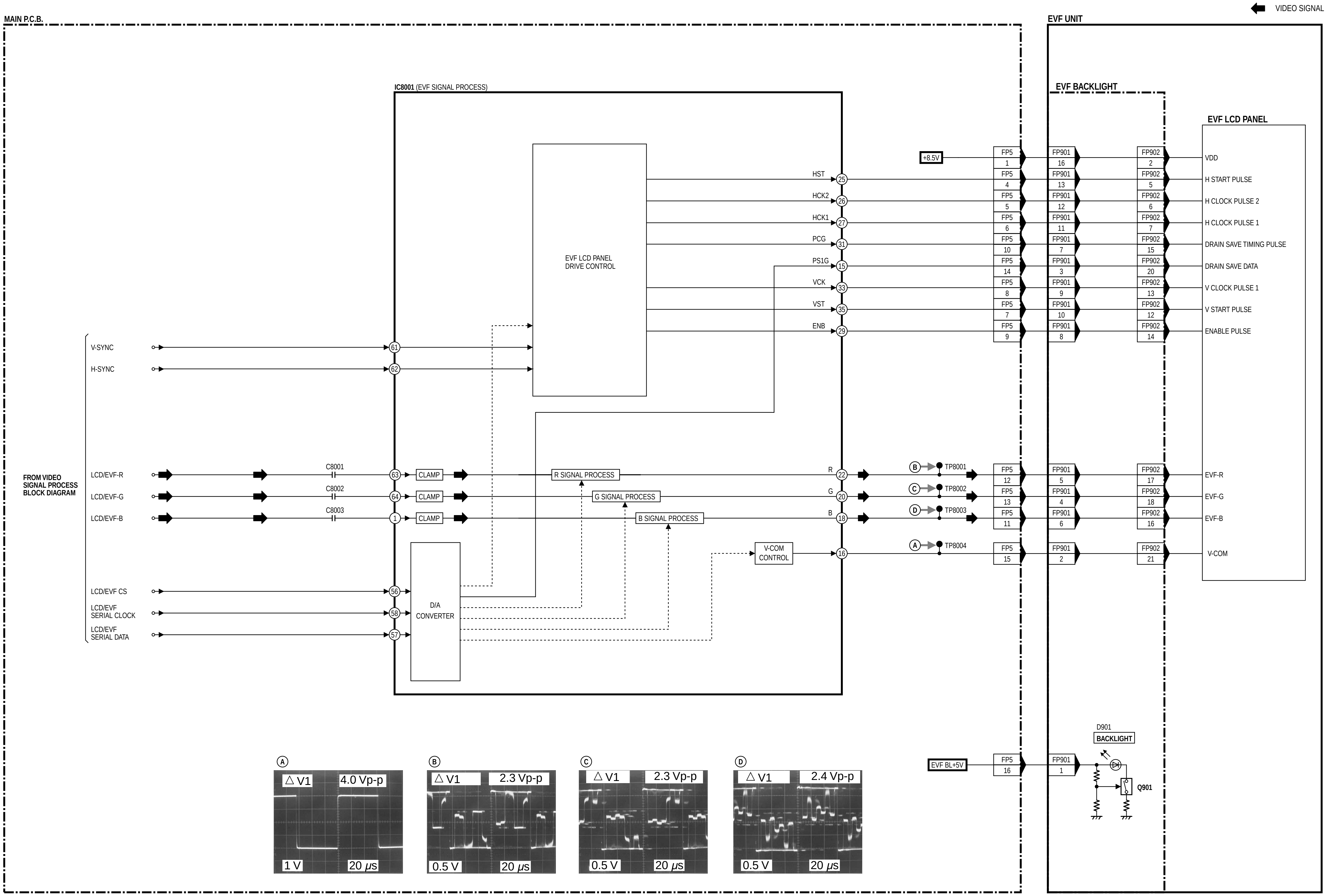
AF BLOCK DIAGRAM


MAIN P.C.B.
LENS UNIT
IC6001
(SYSTEM MICROCONTROLLER)
ZOOM ENCODER
FOCUS ENCODER
LED CONTROL
ZOOM SW DATA
LENS TEMP. SENSOR
RESET(L)
LENS DRIVE VD
LENS DRIVE CS
LENS DRIVE DATA
LENS DRIVE CLOCK
67
78
82
257
267
81
73
111
109
116
+5V
Q6002
LED
DRIVE
+2.8V
V-REF(H)
FP701
FP3
SIDE L/DISK UNIT
ZOOM
SW
THERMO
FOCUS
ENCODER
ZOOM
ENCODER
CCD
HALL
ELEMENT
IRIS
MOTOR
FOCUS
MOTOR
(STEPPING
MOTOR)
ZOOM MOTOR
(STEPPING MOTOR)
IC701 (FOCUS/ZOOM MOTOR DRIVE / IRIS/HALL AMP CONTROL)
35
RESET(L)
SERIAL
PARARELL
DECODER
D/A CONVERTER
/DRIVE CONTROL
FOCUS
MOTOR
DRIVE
ZOOM
MOTOR
DRIVE
1/N
IC3001
(CAMERA DIGITAL SIGNAL PROCESS)
4.5MHz CLOCK
442
Q3001
BUFFER
34
ALC PWM CONTROL
IRIS CLOSE
IRIS OPEN
FROM VIDEO SIGNAL
PROCESS
BLOCK DIAGRAM
IC6001
(SYSTEM MICROCONTROLLER)
HALL BIAS CONTROL
F NUMBER
PWM BIAS CONTROL
HALL AMP GAIN CONTROL
71
254
66
77
IRIS
DRIVE
IRIS
LOGIC
DRIVE
V-REF

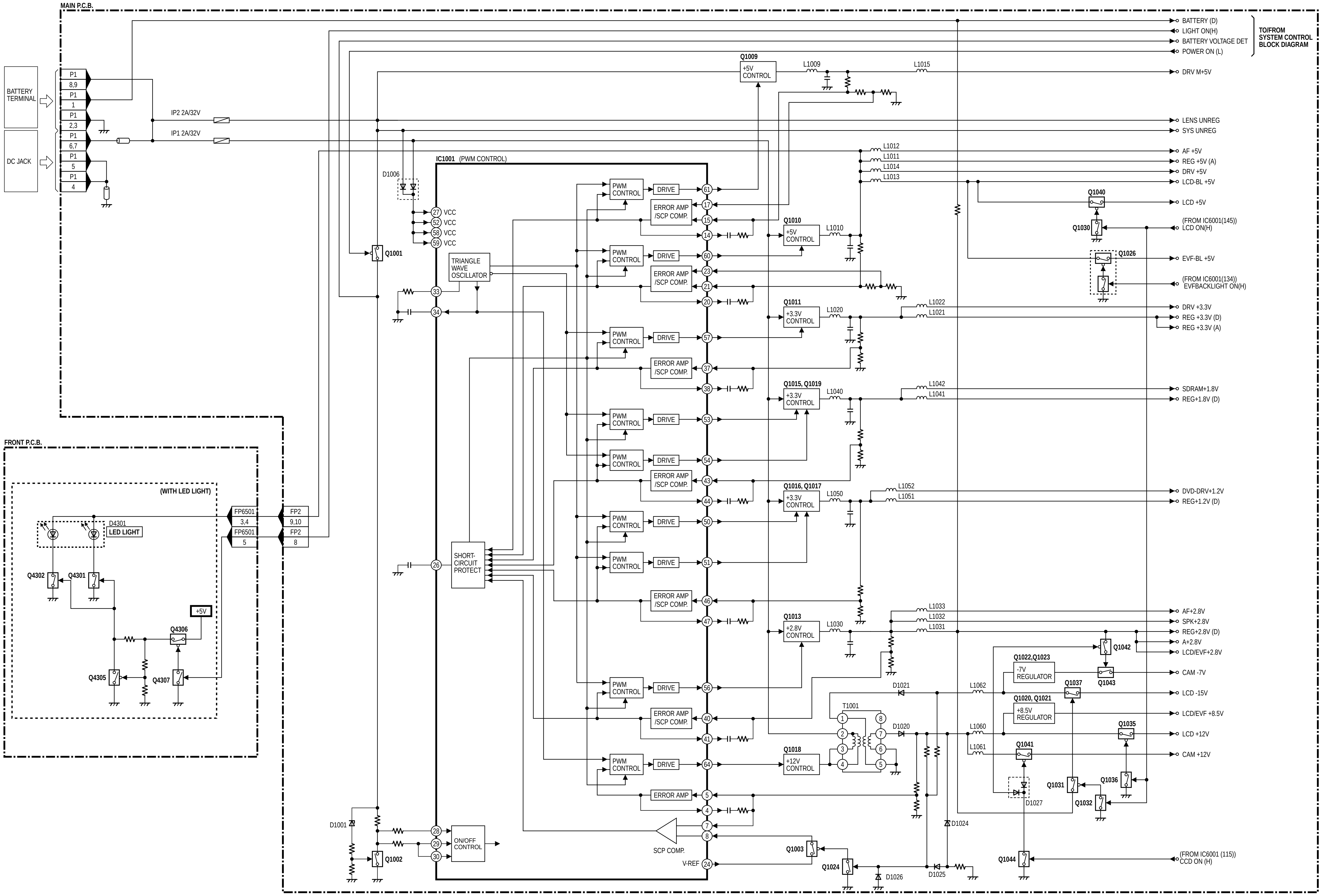
LCD DRIVE BLOCK DIAGRAM


VIDEO SIGNAL (REC & PB)
MAIN P.C.B.
SIDE R P.C.B.
OPEN SWITCH P.C.B.
LCD SHAFT CASE UNIT
LCD BACKLIGHT P.C.B.
LCD PANEL UNIT
OPEN/CLOSE
REVERSE/NORMAL
TO SYSTEM CONTROL BLOCK DIAGRAM
LCD OPEN (L)
LCD REVERSE (L)
FP1 21
FP1 22
FP6301 21
FP6301 22
FP6303 21
FP6304 1
P6302 1
P6301 1
FP4 28
IC8001 (LCD RGB SIGNAL PROCESS)
LCD DRIVE OUTPUT
OEH
STH2
STH1
CLK1
CLK2
CLK3
OEV
STV2
STV1
CPV
Q2H
V-SYNC
H-SYNC
FROM VIDEO SIGNAL PROCESS BLOCK DIAGRAM
LCD/EVF-R
LCD/EVF-G
LCD/EVF-B
C8001
C8002
C8003
CLAMP
R SIGNAL PROCESS
G SIGNAL PROCESS
B SIGNAL PROCESS
R
G
B
TP8005
TP8006
TP8007
TP8008
V-COM AC CONTROL
BACKLIGHT CONTROL
LCD/EVF CS
LCD/EVF SERIAL CLOCK
LCD/EVF SERIAL DATA
D/A CONVERTER
REVERSE(UP/DOWN) CONTROL
REVERSE(L/R) CONTROL
Q8105,Q8106
V-COM DRIVE
BL+5V
BACKLIGHT
D8101
D8103
D8105
D8107
Q8101
Q8102
Q8103
Q8104
FP4
FP8101
FP8102
A
△V1 7.0 Vp-p
2 V 20 μs
B
△V1 3.5 Vp-p
1 V 20 μs
C
△V1 3.5 Vp-p
1 V 20 μs
D
△V1 3.5 Vp-p
1 V 20 μs

EVF BLOCK DIAGRAM


VIDEO SIGNAL
MAIN P.C.B.
EVF UNIT
IC8001 (EVF SIGNAL PROCESS)
EVF BACKLIGHT
EVF LCD PANEL
EVF LCD PANEL DRIVE CONTROL
+8.5V
HST 25
HCK2 26
HCK1 27
PCG 31
PS1G 15
VCK 33
VST 35
ENB 29
FP5 1 / FP901 16 / FP902 2 VDD
FP5 4 / FP901 13 / FP902 5 H START PULSE
FP5 5 / FP901 12 / FP902 6 H CLOCK PULSE 2
FP5 6 / FP901 11 / FP902 7 H CLOCK PULSE 1
FP5 10 / FP901 7 / FP902 15 DRAIN SAVE TIMING PULSE
FP5 14 / FP901 3 / FP902 20 DRAIN SAVE DATA
FP5 8 / FP901 9 / FP902 13 V CLOCK PULSE 1
FP5 7 / FP901 10 / FP902 12 V START PULSE
FP5 9 / FP901 8 / FP902 14 ENABLE PULSE
V-SYNC 61
H-SYNC 62
FROM VIDEO SIGNAL PROCESS BLOCK DIAGRAM
LCD/EVF-R C8001 63 CLAMP
LCD/EVF-G C8002 64 CLAMP
LCD/EVF-B C8003 1 CLAMP
R SIGNAL PROCESS
G SIGNAL PROCESS
B SIGNAL PROCESS
R 22
G 20
B 18
V-COM CONTROL 16
B TP8001
C TP8002
D TP8003
A TP8004
FP5 12 / FP901 5 / FP902 17 EVF-R
FP5 13 / FP901 4 / FP902 18 EVF-G
FP5 11 / FP901 6 / FP902 16 EVF-B
FP5 15 / FP901 2 / FP902 21 V-COM
LCD/EVF CS 56
LCD/EVF SERIAL CLOCK 58
LCD/EVF SERIAL DATA 57
D/A CONVERTER
D901
BACKLIGHT
EVF BL+5V
FP5 16 / FP901 1
Q901
A △V1 4.0 Vp-p 1 V 20 μs
B △V1 2.3 Vp-p 0.5 V 20 μs
C △V1 2.3 Vp-p 0.5 V 20 μs
D △V1 2.4 Vp-p 0.5 V 20 μs

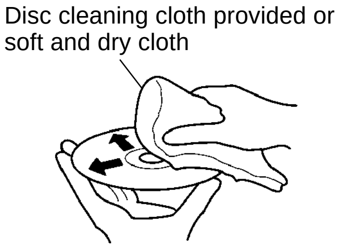
POWER SUPPLY BLOCK DIAGRAM


MAIN P.C.B.
BATTERY TERMINAL
DC JACK
P1
8,9
P1
1
P1
2,3
P1
6,7
P1
5
P1
4
IP2 2A/32V
IP1 2A/32V
D1006
Q1001
IC1001 (PWM CONTROL)
VCC
VCC
VCC
VCC
TRIANGLE WAVE OSCILLATOR
PWM CONTROL
DRIVE
ERROR AMP /SCP COMP.
ERROR AMP
SHORT-CIRCUIT PROTECT
ON/OFF CONTROL
SCP COMP.
V-REF
Q1009
+5V CONTROL
L1009
L1015
Q1010
+5V CONTROL
L1010
L1012
L1011
L1014
L1013
Q1011
+3.3V CONTROL
L1020
L1022
L1021
Q1015, Q1019
+3.3V CONTROL
L1040
L1042
L1041
Q1016, Q1017
+3.3V CONTROL
L1050
L1052
L1051
Q1013
+2.8V CONTROL
L1030
L1033
L1032
L1031
Q1018
+12V CONTROL
T1001
D1021
D1020
D1024
D1025
D1026
D1027
D1001
Q1002
Q1003
Q1024
Q1022,Q1023
-7V REGULATOR
Q1020, Q1021
+8.5V REGULATOR
L1062
L1060
L1061
Q1037
Q1043
Q1042
Q1035
Q1041
Q1031
Q1032
Q1036
Q1044
Q1040
Q1030
Q1026
BATTERY (D)
LIGHT ON(H)
BATTERY VOLTAGE DET
POWER ON (L)
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
DRV M+5V
LENS UNREG
SYS UNREG
AF +5V
REG +5V (A)
DRV +5V
LCD-BL +5V
LCD +5V
(FROM IC6001(145)) LCD ON(H)
EVF-BL +5V
(FROM IC6001(134)) EVFBACKLIGHT ON(H)
DRV +3.3V
REG +3.3V (D)
REG +3.3V (A)
SDRAM+1.8V
REG+1.8V (D)
DVD-DRV+1.2V
REG+1.2V (D)
AF+2.8V
SPK+2.8V
REG+2.8V (D)
A+2.8V
LCD/EVF+2.8V
CAM -7V
LCD -15V
LCD/EVF +8.5V
LCD +12V
CAM +12V
(FROM IC6001 (115)) CCD ON (H)
FRONT P.C.B.
(WITH LED LIGHT)
D4301
LED LIGHT
Q4302
Q4301
Q4306
+5V
Q4305
Q4307
FP6501
3,4
FP6501
5
FP2
9,10
FP2
8

(1) Cleaning disc

1) Use the provided disc cleaning cloth, or a soft, dry cloth to lightly clean the disc from the inner to outer edges in axial direction.

2) If the dirt cannot be removed with the above procedure, put a few droplets of absolute alcohol in a soft, dry cloth, and use it to lightly clean the disc from the inner to outer edges in axial direction.


Disc cleaning cloth provided or soft and dry cloth

Cleaning Disc

(2) Cleaning optical pickup

Note:
Do not clean the optical pickup needlessly. The optical pickup is a precision component. Repeated cleaning could cause a fault.

1) Attach the AC adapter/charger or battery (power supply), and then slide the DISC EJECT switch to open the disc insertion block.
2) Remove the AC adapter/charger or battery (power supply).

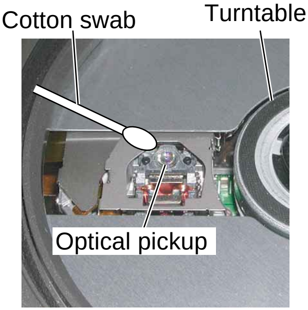
Caution:
Laser light striking the eye may cause your eyesight to be lost: For safety, be sure to remove any power supply (AC adaptor/charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M

3) Check to see whether the optical pickup is dirty. If it is not dirty, use the following procedure to clean it:
   a) Apply one drop of absolute alcohol on a clean cotton swab (*1). Lens cleaner liquid for CD/DVD (generally available) may be substituted for absolute alcohol.
   b) Lightly swab the optical pickup to clean it. Using too much force during cleaning may cause a fault to occur.

*1: Always use a fresh cotton swab free from any additive or chemical.



Cleaning Optical Pickup

Check Point of IC3001

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
1	NC	----------	-----	-----	
2	NC	----------	-----	-----	
3	NC	----------	-----	-----	
4	NC	----------	-----	-----	
5	AVDDTR	----------	-----	-----	
6	DP	R3001 (RIGHT)	F-2	WF1	MAIN P.C.B.(C)
7	AVSSTR	----------	-----	-----	
8	RSDP	R3001 (LEFT)	F-2	WF1	MAIN P.C.B.(C)
9	DM	R3002 (LEFT)	F-2	WF1	MAIN P.C.B.(C)
10	RSDM	R3002 (RIGHT)	F-2	WF1	MAIN P.C.B.(C)
11	AVSSTR	----------	-----	-----	
12	AVDDPLL	----------	-----	-----	
13	AVSSPLL	----------	-----	-----	
14	RES10K	R3005 (LEFT)	F-2	WF1	MAIN P.C.B.(C)
15	RPU PAD	R3006 (RIGHT)	G-1	WF1	MAIN P.C.B.(C)
16	T AAP	TP3027	F-1	WF1	MAIN P.C.B.(C)
17	OSCO	R3008 (RIGHT)	E-2	WF1	MAIN P.C.B.(C)
18	OSCI	C3058 (LEFT)	F-2	WF1	MAIN P.C.B.(C)
19	VDD	----------	-----	-----	
20	VSS	----------	-----	-----	
21	SDDATA[0]	FP1-11	B-2	WF1	MAIN P.C.B.(F)
22	SDDATA[1]	FP1-10	B-2	WF1	MAIN P.C.B.(F)
23	SDDATA[2]	FP1-4	B-2	WF1	MAIN P.C.B.(F)
24	SDDATA[3]	FP1-5	B-2	WF1	MAIN P.C.B.(F)
25	SDCMD	FP1-6	B-2	WF1	MAIN P.C.B.(F)
26	VDDIO2	----------	-----	-----	
27	VSSIO2	----------	-----	-----	
28	SDCLK	FP1-8	B-2	WF1	MAIN P.C.B.(F)
29	VDDIO2	----------	-----	-----	
30	VSSIO2	----------	-----	-----	
31	CARD DET	FP1-2	B-2	WF1	MAIN P.C.B.(F)
32	PROTECT	FP1-1	B-2	WF1	MAIN P.C.B.(F)
33	VSSIO2	----------	-----	-----	
34	NC	----------	-----	-----	
35	NC	----------	-----	-----	
36	NC	----------	-----	-----	
37	NC	----------	-----	-----	
38	NC	----------	-----	-----	
39	VDDIO3	----------	-----	-----	
40	VSSIO3	----------	-----	-----	
41	NC	----------	-----	-----	
42	NC	----------	-----	-----	
43	NC	----------	-----	-----	
44	XDREQ0	R3010 (UPPER)	E-2	WF1	MAIN P.C.B.(C)
45	XDREQ1	R3011 (UPPER)	E-2	WF1	MAIN P.C.B.(C)
46	NC	----------	-----	-----	
47	NC	----------	-----	-----	
48	XSDF	R3012 (UPPER)	E-2	WF1	MAIN P.C.B.(C)
49	NC	----------	-----	-----	
50	NC	----------	-----	-----	
51	NC	----------	-----	-----	
52	VSSIO3	----------	-----	-----	
53	VDDIO3	----------	-----	-----	
54	INT0	R3013 (LEFT)	F-1	WF1	MAIN P.C.B.(C)
55	INT1	----------	-----	-----	
56	INT2	IC3301-14	C-2	WF1	MAIN P.C.B.(F)
57	INT3	----------	-----	-----	
58	INT4	----------	-----	-----	
59	VSSIO1	----------	-----	-----	
60	VDDIO1	----------	-----	-----	
61	SIO	R3014 (UPPER)	F-1	WF2	MAIN P.C.B.(C)
62	SDO	R3015 (UPPER)	F-1	WF3	MAIN P.C.B.(C)
63	SCK0	R3016 (LEFT)	G-1	WF1	MAIN P.C.B.(C)
64	DRAMSDAT[0]	----------	-----	-----	
65	DRAMSDAT[1]	----------	-----	-----	
66	DRAMSDAT[2]	----------	-----	-----	
67	DRAMSDAT[3]	----------	-----	-----	
68	VSSIO5	----------	-----	-----	
69	DRAMSDAT[4]	----------	-----	-----	
70	DRAMSDAT[5]	----------	-----	-----	
71	DRAMSDAT[6]	----------	-----	-----	
72	DRAMSDAT[7]	----------	-----	-----	
73	DRAMSDAT[8]	----------	-----	-----	
74	VSSIO5	----------	-----	-----	
75	VDDIO5	----------	-----	-----	
76	DRAMSDAT[9]	----------	-----	-----	
77	DRAMSDAT[10]	----------	-----	-----	
78	DRAMSDAT[11]	----------	-----	-----	
79	DRAMSDAT[12]	----------	-----	-----	
80	VSSIO5	----------	-----	-----	
81	VDDIO5	----------	-----	-----	
82	VDDIO5	----------	-----	-----	
83	DRAMSDAT[13]	----------	-----	-----	
84	DRAMSDAT[14]	----------	-----	-----	
85	DRAMSDAT[15]	----------	-----	-----	
86	DRAMSDAT[16]	----------	-----	-----	
87	DRAMSDAT[17]	----------	-----	-----	
88	DRAMSDAT[18]	----------	-----	-----	
89	DRAMSDAT[19]	----------	-----	-----	
90	DRAMSDAT[20]	----------	-----	-----	
91	DRAMSDAT[21]	----------	-----	-----	
92	DRAMSDAT[22]	----------	-----	-----	
93	DRAMSDAT[23]	----------	-----	-----	
94	DRAMSDAT[24]	----------	-----	-----	
95	VDDIO5	----------	-----	-----	
96	VSSIO5	----------	-----	-----	
97	DRAMSDAT[25]	----------	-----	-----	
98	DRAMSDAT[26]	----------	-----	-----	
99	DRAMSDAT[27]	----------	-----	-----	
100	DRAMSDAT[28]	----------	-----	-----	
101	DRAMSDAT[29]	----------	-----	-----	
102	DRAMSDAT[30]	----------	-----	-----	
103	DRAMSDAT[31]	----------	-----	-----	
104	VDDIO5	----------	-----	-----	
105	VSSIO5	----------	-----	-----	
106	DRAMSDQM[0]	----------	-----	-----	
107	DRAMSDQM[1]	----------	-----	-----	
108	DRAMSDQM[2]	----------	-----	-----	
109	DRAMSDQM[3]	----------	-----	-----	
110	VSSIO5	----------	-----	-----	
111	VDDIO5	----------	-----	-----	
112	XDRAMSWE	----------	-----	-----	
113	XDRAMSCAS	----------	-----	-----	
114	XDRAMSRAS	----------	-----	-----	
115	SRAMSCLK0	----------	-----	-----	
116	DRAMSCKE[0]	----------	-----	-----	
117	DRAMSCLKIN	----------	-----	-----	
118	VSSIO5	----------	-----	-----	
119	NC	----------	-----	-----	
120	NC	----------	-----	-----	
121	NC	----------	-----	-----	
122	NC	----------	-----	-----	
123	NC	----------	-----	-----	
124	NC	----------	-----	-----	
125	NC	----------	-----	-----	
126	XDRAMSCS[0]	----------	-----	-----	
127	DRAMSBANK[0]	----------	-----	-----	
128	DRAMSBANK[1]	----------	-----	-----	
129	VDD	----------	-----	-----	
130	DRAMSADR[0]	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
131	DRAMSADR[1]	----------	-----	-----	
132	DRAMSADR[2]	----------	-----	-----	
133	DRAMSADR[3]	----------	-----	-----	
134	VSS	----------	-----	-----	
135	DRAMSADR[4]	----------	-----	-----	
136	DRAMSADR[5]	----------	-----	-----	
137	DRAMSADR[6]	----------	-----	-----	
138	DRAMSADR[7]	----------	-----	-----	
139	VSS	----------	-----	-----	
140	DRAMSADR[8]	----------	-----	-----	
141	DRAMSADR[9]	----------	-----	-----	
142	DRAMSADR[10]	----------	-----	-----	
143	DRAMSADR[11]	----------	-----	-----	
144	DRAMSADR[12]	----------	-----	-----	
145	VDDIO5	----------	-----	-----	
146	VDDIO5	----------	-----	-----	
147	VSSIO5	----------	-----	-----	
148	TDI	B3-39	B-3	WF1	MAIN P.C.B.(F)
149	TDO	R3022 (LOWER)	F-3	WF1	MAIN P.C.B.(C)
150	TCK	----------	-----	-----	
151	TMS	B3-37	B-3	WF1	MAIN P.C.B.(F)
152	XTRST	B3-40	B-3	WF1	MAIN P.C.B.(F)
153	DBGEN	R3023(LEFT)	F-3	WF1	MAIN P.C.B.(C)
154	VDDIO4	----------	-----	-----	
155	TRACECLK	B3-17	B-3	WF1	MAIN P.C.B.(F)
156	TRACESYNC	B3-34	B-3	WF1	MAIN P.C.B.(F)
157	PIPESTS[0]	B3-32	B-3	WF1	MAIN P.C.B.(F)
158	PIPESTS[1]	B3-31	B-3	WF1	MAIN P.C.B.(F)
159	PIPESTS[2]	B3-30	B-3	WF1	MAIN P.C.B.(F)
160	TRACEPKT[0]	B3-20	B-3	WF1	MAIN P.C.B.(F)
161	TRACEPKT[1]	B3-19	B-3	WF1	MAIN P.C.B.(F)
162	TRACEPKT[2]	B3-23	B-3	WF1	MAIN P.C.B.(F)
163	TRACEPKT[3]	B3-22	B-3	WF1	MAIN P.C.B.(F)
164	VDDIO4	----------	-----	-----	
165	VSSIO4	----------	-----	-----	
166	TRACEPKT[4]	B3-24	B-3	WF1	MAIN P.C.B.(F)
167	TRACEPKT[5]	B3-26	B-3	WF1	MAIN P.C.B.(F)
168	TRACEPKT[6]	B3-27	B-3	WF1	MAIN P.C.B.(F)
169	TRACEPKT[7]	B3-28	B-3	WF1	MAIN P.C.B.(F)
170	VDDIO4	----------	-----	-----	
171	VSSIO4	----------	-----	-----	
172	EXTRGO[0]	R3024 (LEFT)	G-1	WF1	MAIN P.C.B.(C)
173	EXTRGO[1]	----------	-----	-----	
174	ATCK	R3026 (LOWER)	F-3	WF1	MAIN P.C.B.(C)
175	DBGR	B3-10	B-3	WF1	MAIN P.C.B.(F)
176	DBGA	B3-41	B-3	WF1	MAIN P.C.B.(F)
177	VSSIO4	----------	-----	-----	
178	NC	----------	-----	-----	
179	TXD	R3027 (LEFT)	F-3	WF1	MAIN P.C.B.(C)
180	RXD	R3028 (LEFT)	F-3	WF1	MAIN P.C.B.(C)
181	SY	R3031(UPPRE)	E-5	WF1	MAIN P.C.B.(C)
182	ICR	----------	-----	-----	
183	PWM0	R3137(LEFT)	G-1	WF1	MAIN P.C.B.(C)
184	PWM1	----------		-----	
185	VDDIO8	----------	-----	-----	
186	ADM[0]	----------	-----	-----	
187	ADM[1]	TP3003	F-4	WF4	MAIN P.C.B.(C)
188	ADM[2]	----------	-----	-----	
189	ADM[3]	----------	-----	-----	
190	ADM[4]	----------	-----	-----	
191	ADM[5]	----------	-----	-----	
192	ADM[6]	----------	-----	-----	
193	ADM[7]	----------	-----	-----	
194	VSSIO8	----------	-----	-----	
195	ADM[8]	----------	-----	-----	
196	ADM[9]	----------	-----	-----	
197	ADM[10]	----------	-----	-----	
198	ADM[11]	----------	-----	-----	
199	ADM[12]	----------	-----	-----	
200	ADM[13]	----------	-----	-----	
201	ADM[14]	----------	-----	-----	
202	ADM[15]	----------	-----	-----	
203	VDDIO8	----------	-----	-----	
204	XAVALE	TP3004	E-4	WF1	MAIN P.C.B.(C)
205	XWEH	TP3005	F-4	WF5	MAIN P.C.B.(C)
206	XWEL	TP3006	F-4	WF6	MAIN P.C.B.(C)
207	XRE	TP3007	F-4	WF7	MAIN P.C.B.(C)
208	XCS	TP3008	F-4	WF8	MAIN P.C.B.(C)
209	XWAIT	TP3009	F-4	WF9	MAIN P.C.B.(C)
210	CAMIRQ	TP3010	F-4	WF10	MAIN P.C.B.(C)
211	VDD	----------	-----	-----	
212	XRST	----------	-----	-----	
213	SFRM0	TP3011	D-2	WF11	MAIN P.C.B.(C)
214	SFRM1	R3034(RIGHT)	E-5	WF1	MAIN P.C.B.(C)
215	SFRM2	R3035(RIGHT)	E-5	WF12	MAIN P.C.B.(C)
216	SFRM3	R3204(RIGHT)	G-4	WF1	MAIN P.C.B.(C)
217	SFRM4	R3036(LOWER)	E-5	WF13	MAIN P.C.B.(C)
218	VSSIO7	----------	-----	-----	
219	XSCS[0]	TP3012	F-4	WF1	MAIN P.C.B.(C)
220	NC	----------	-----	-----	
221	NC	----------	-----	-----	
222	NC	----------	-----	-----	
223	NC	----------	-----	-----	
224	NC	----------	-----	-----	
225	NC	----------	-----	-----	
226	XSCS[7]	TP3013	F-3	WF1	MAIN P.C.B.(C)
227	XSWE[0]	TP3014	C-4	WF1	MAIN P.C.B.(F)
228	NC	----------	-----	-----	
229	VSS	----------	-----	-----	
230	XARD	TP3015	C-4	WF1	MAIN P.C.B.(F)
231	NC	----------	-----	-----	
232	VDDIO7	----------	-----	-----	
233	AADR[0]	TP3016	F-3	WF1	MAIN P.C.B.(C)
234	AADR[1]	----------	-----	-----	
235	AADR[2]	----------	-----	-----	
236	AADR[3]	----------	-----	-----	
237	AADR[4]	----------	-----	-----	
238	VSSIO7	----------	-----	-----	
239	VDDIO7	----------	-----	-----	
240	NC	----------	-----	-----	
241	NC	----------	-----	-----	
242	NC	----------	-----	-----	
243	NC	----------	-----	-----	
244	NC	----------	-----	-----	
245	NC	----------	-----	-----	
246	NC	----------	-----	-----	
247	AADR[5]	----------	-----	-----	
248	AADR[6]	----------	-----	-----	
249	AADR[7]	----------	-----	-----	
250	AADR[8]	----------	-----	-----	
251	AADR[9]	----------	-----	-----	
252	AADR[10]	----------	-----	-----	
253	AADR[11]	----------	-----	-----	
254	AADR[12]	----------	-----	-----	
255	AADR[13]	----------	-----	-----	
256	AADR[14]	----------	-----	-----	
257	AADR[15]	----------	-----	-----	
258	VDDIO7	----------	-----	-----	
259	AADR[16]	----------	-----	-----	
260	AADR[17]	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
261	AADR[18]	----------	-----	-----	
262	AADR[19]	----------	-----	-----	
263	AADR[20]	----------	-----	-----	
264	AADR[21]	----------	-----	-----	
265	AADR[22]	----------	-----	-----	
266	AADR[23]	----------	-----	-----	
267	VSSIO7	----------	-----	-----	
268	NC	----------	-----	-----	
269	NC	----------	-----	-----	
270	ADAT[0]	TP3018	C-4	WF1	MAIN P.C.B.(F)
271	ADAT[1]	----------	-----	-----	
272	ADAT[2]	----------	-----	-----	
273	ADAT[3]	----------	-----	-----	
274	ADAT[4]	----------	-----	-----	
275	ADAT[5]	----------	-----	-----	
276	ADAT[6]	----------	-----	-----	
277	ADAT[7]	----------	-----	-----	
278	VDD	----------	-----	-----	
279	ADAT[8]	----------	-----	-----	
280	ADAT[9]	----------	-----	-----	
281	ADAT[10]	----------	-----	-----	
282	ADAT[11]	----------	-----	-----	
283	ADAT[12]	----------	-----	-----	
284	ADAT[13]	----------	-----	-----	
285	ADAT[14]	----------	-----	-----	
286	ADAT[15]	----------	-----	-----	
287	NC	----------	-----	-----	
288	VDDIO7	----------	-----	-----	
289	SCK1	R3038(RIGHT)	E-1	WF14	MAIN P.C.B.(C)
290	SO1	R3039(RIGHT)	E-1	WF15	MAIN P.C.B.(C)
291	SI1	----------	-----	-----	
292	INT5	R3041 (LOWER)	E-3	WF1	MAIN P.C.B.(C)
293	INT6	R3205(RIGHT)	G-5	WF1	MAIN P.C.B.(C)
294	INT7	R3043 (LOWER)	E-5	WF16	MAIN P.C.B.(C)
295	XNMI	----------	-----	-----	
296	SCL	----------	-----	-----	
297	SDA	----------	-----	-----	
298	XRSTOUT	TP3019	E-4	WF1	MAIN P.C.B.(C)
299	SYSCLK	TP3020	E-4	WF1	MAIN P.C.B.(C)
300	VSS	----------	-----	-----	
301	VDDIO6	----------	-----	-----	
302	ADIN[0]	----------	-----	-----	
303	ADIN[1]	----------	-----	-----	
304	ADIN[2]	----------	-----	-----	
305	ADIN[3]	----------	-----	-----	
306	ADIN[4]	----------	-----	-----	
307	ADIN[5]	----------	-----	-----	
308	ADIN[6]	----------	-----	-----	
309	ADIN[7]	----------	-----	-----	
310	ADIN[8]	----------	-----	-----	
311	ADIN[9]	----------	-----	-----	
312	VSSIO6	----------	-----	-----	
313	NC	----------	-----	-----	
314	NC	----------	-----	-----	
315	NC	----------	-----	-----	
316	VDDIO6	----------	-----	-----	
317	ZACOMP	----------	-----	-----	
318	ZBCOMP	----------	-----	-----	
319	ZCCOMP	----------	-----	-----	
320	ZDCOMP	----------	-----	-----	
321	SI6	----------	-----	-----	
322	VSSIO6	----------	-----	-----	
323	ALCPWM	R706(LEFT)	H-3	WF17	MAIN P.C.B.(C)
324	OPEN NOPWM	IC701-6	G-4	WF1	MAIN P.C.B.(C)
325	IRISCLOSE	IC701-7	G-4	WF1	MAIN P.C.B.(C)

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
326	VDDIO6	----------	-----	-----	
327	CAMHD	R305 (UPPER)	C-3	WF18	MAIN P.C.B.(F)
328	CAMVD	IC302-3	D-3	WF19	MAIN P.C.B.(F)
329	VSSIO6	----------	-----	-----	
330	FCK45	IC302-12	D-3	WF20	MAIN P.C.B.(F)
331	AVDD18	----------	-----	-----	
332	AVDD28	----------	-----	-----	
333	YOUT	R3047 (LOWER)	E-1	WF21	MAIN P.C.B.(C)
334	YCCOMP	----------	-----	-----	
335	YCIREF	----------	-----	-----	
336	COUT	R3048 (LOWER)	E-1	WF22	MAIN P.C.B.(C)
337	AVSS18	----------	-----	-----	
338	AVSS28	----------	-----	-----	
339	AVDD1A	----------	-----	-----	
340	AVDD2A	----------	-----	-----	
341	LCDROUT	R3050 (LOWER)	C-1	WF23	MAIN P.C.B.(C)
342	LCDGOUT	R3051 (LOWER)	D-1	WF24	MAIN P.C.B.(C)
343	LCDBOUT	R3052 (LOWER)	C-1	WF25	MAIN P.C.B.(C)
344	VDDIO6	----------	-----	-----	
345	LCDCOMP	----------	-----	-----	
346	LCDIREF	----------	-----	-----	
347	LCDVREF	----------	-----	-----	
348	AVSS1A	----------	-----	-----	
349	AVSS2A	----------	-----	-----	
350	AVDD5	----------	-----	-----	
351	ADC0	----------	-----	-----	
352	ADC1	TP3021	D-2	WF1	MAIN P.C.B.(C)
353	ADC2	R3056(LOWER)	E-1	WF1	MAIN P.C.B.(C)
354	ADC3	C3068(LOWER)	C-1	WF1	MAIN P.C.B.(C)
355	AVSS5	----------	-----	-----	
356	VDDIO6	----------	-----	-----	
357	VSS	----------	-----	-----	
358	NC	----------	-----	-----	
359	VSSIO5	----------	-----	-----	
360	NC	----------	-----	-----	
361	NC	----------	-----	-----	
362	NC	----------	-----	-----	
363	NC	----------	-----	-----	
364	NC	----------	-----	-----	
365	NC	----------	-----	-----	
366	NC	----------	-----	-----	
367	NC	----------	-----	-----	
368	AVDD0	----------	-----	-----	
369	AVSS0	----------	-----	-----	
370	AVDD1	----------	-----	-----	
371	AVSS1	----------	-----	-----	
372	AVDD2	----------	-----	-----	
373	AVSS2	----------	-----	-----	
374	AVDD3	----------	-----	-----	
375	AVSS3	----------	-----	-----	
376	AVDD4	----------	-----	-----	
377	AVSS4	----------	-----	-----	
378	CLKSEL[0]	----------	-----	-----	
379	CLKSEL[1]	----------	-----	-----	
380	CLKSEL[2]	----------	-----	-----	
381	AMMPCLK	----------	-----	-----	
382	MEMCLK	----------	-----	-----	
383	MONOUT0	----------	-----	-----	
384	MONOUT1	----------	-----	-----	
385	MONOUT2	----------	-----	-----	
386	MODE[0]	----------	-----	-----	
387	MODE[1]	----------	-----	-----	
388	MODE[2]	----------	-----	-----	
389	NC	----------	-----	-----	
390	NC	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
391	NC	----------	-----	-----	
392	NC	----------	-----	-----	
393	VSSIO5	----------	-----	-----	
394	CLK135	TP3022	D-2	WF26	MAIN P.C.B.(C)
395	CLK27A	TP3023	D-2	WF27	MAIN P.C.B.(C)
396	NC	----------	-----	-----	
397	VDDIO5	----------	-----	-----	
398	DOMCK	IC3301-2	D-2	WF28	MAIN P.C.B.(F)
399	DOBCK	IC3301-3	D-2	WF29	MAIN P.C.B.(F)
400	DOLRCK	IC3301-1	D-2	WF30	MAIN P.C.B.(F)
401	DODAT	IC3301-4	D-2	WF1	MAIN P.C.B.(F)
402	AIDAT1	IC3301-5	D-2	WF31	MAIN P.C.B.(F)
403	AIDAT2	IC3301-6	D-2	WF32	MAIN P.C.B.(F)
404	VDDIO5	----------	-----	-----	
405	NC	----------	-----	-----	
406	NC	----------	-----	-----	
407	NC	----------	-----	-----	
408	NC	----------	-----	-----	
409	NC	----------	-----	-----	
410	NC	----------	-----	-----	
411	NC	----------	-----	-----	
412	NC	----------	-----	-----	
413	NC	----------	-----	-----	
414	VDDIO5	----------	-----	-----	
415	NC	----------	-----	-----	
416	NC	----------	-----	-----	
417	NC	----------	-----	-----	
418	NC	----------	-----	-----	
419	NC	----------	-----	-----	
420	NC	----------	-----	-----	
421	NC	----------	-----	-----	
422	NC	----------	-----	-----	
423	NC	----------	-----	-----	
424	VSS	----------	-----	-----	
425	LCDHD	R3079(UPPER)	E-2	WF33	MAIN P.C.B.(C)
426	LCDVBLK	R3080(UPPER)	E-2	WF34	MAIN P.C.B.(C)
427	NC	----------	-----	-----	
428	VDD	----------	-----	-----	
429	VDDIO4	----------	-----	-----	
430	NC	----------	-----	-----	
431	NC	----------	-----	-----	
432	NC	----------	-----	-----	
433	NC	----------	-----	-----	
434	VDDIO4	----------	-----	-----	
435	NC	----------	-----	-----	
436	NC	----------	-----	-----	
437	NC	----------	-----	-----	
438	NC	----------	-----	-----	
439	VSSIO4	----------	-----	-----	
440	LINPWM	TP3024	E-1	WF35	MAIN P.C.B.(C)
441	SVD ZA	TP3025	E-1	WF1	MAIN P.C.B.(C)
442	CLK45M ZB	R3001-B	F-2	WF36	MAIN P.C.B.(C)
443	VSSIO4	----------	-----	-----	
444	ATADD[0]	R3101(LOWER)	D-1	WF1	MAIN P.C.B.(C)
445	ATADD[1]	R3102(LOWER)	D-1	WF1	MAIN P.C.B.(C)
446	ATADD[2]	R3103(LOWER)	D-1	WF1	MAIN P.C.B.(C)
447	ATADD[3]	R3104(LOWER)	D-1	WF1	MAIN P.C.B.(C)
448	ATADD[4]	R3105(LOWER)	D-1	WF1	MAIN P.C.B.(C)
449	ATADD[5]	R3106(LOWER)	D-1	WF1	MAIN P.C.B.(C)
450	ATADD[6]	R3107(LOWER)	D-1	WF1	MAIN P.C.B.(C)
451	ATADD[7]	R3108(LOWER)	D-1	WF1	MAIN P.C.B.(C)
452	VDDIO4	----------	-----	-----	
453	ATADD[8]	R3109(LOWER)	D-2	WF1	MAIN P.C.B.(C)
454	ATADD[9]	R3110(UPPER)	D-2	WF1	MAIN P.C.B.(C)
455	ATADD[10]	R3111(UPPER)	D-2	WF1	MAIN P.C.B.(C)
456	ATADD[11]	R3112(UPPER)	D-2	WF1	MAIN P.C.B.(C)
457	ATADD[12]	R3113(UPPER)	D-2	WF1	MAIN P.C.B.(C)
458	ATADD[13]	R3114(UPPER)	D-2	WF1	MAIN P.C.B.(C)
459	ATADD[14]	R3115(UPPER)	D-2	WF1	MAIN P.C.B.(C)
460	ATADD[15]	R3116(UPPER)	D-2	WF1	MAIN P.C.B.(C)
461	VSSIO4	----------	-----	-----	
462	ATADA[0]	R3117(LOWER)	E-1	WF1	MAIN P.C.B.(C)
463	ATADA[1]	R3118(LOWER)	D-1	WF1	MAIN P.C.B.(C)
464	ATADA[2]	R3119(UPPER)	D-2	WF1	MAIN P.C.B.(C)
465	VSSIO4	----------	-----	-----	
466	XATACS1	R3120(UPPER)	E-2	WF1	MAIN P.C.B.(C)
467	XATACS3	R3121(UPPER)	E-2	WF1	MAIN P.C.B.(C)
468	XATARD	R3122(UPPER)	D-2	WF1	MAIN P.C.B.(C)
469	XATAWR	R3123(LOWER)	D-1	WF1	MAIN P.C.B.(C)
470	ATADMARQ	R3124(UPPER)	D-2	WF1	MAIN P.C.B.(C)
471	VDDIO4	----------	-----	-----	
472	XATADMACK	R3125(UPPER)	D-2	WF1	MAIN P.C.B.(C)
473	XATARESET	R3126(LOWER)	D-1	WF1	MAIN P.C.B.(C)
474	ATAIORDY	R3127(LOWER)	D-1	WF1	MAIN P.C.B.(C)
475	ATAINTRQ	R3128(LOWER)	D-1	WF1	MAIN P.C.B.(C)
476	ATATX	----------	-----	-----	
477	VDDIO4	----------	-----	-----	
478	NC	----------	-----	-----	
479	NC	----------	-----	-----	
480	NC	----------	-----	-----	
481	NC	----------	-----	-----	
482	NC	----------	-----	-----	
483	NC	----------	-----	-----	
484	NC	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

Check Point of IC3201

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
1	A15	----------	-----	-----	
2	A14	----------	-----	-----	
3	A13	----------	-----	-----	
4	A12	----------	-----	-----	
5	VIO	----------	-----	-----	
6	A11	----------	-----	-----	
7	A10	----------	-----	-----	
8	A9	----------	-----	-----	
9	A8	----------	-----	-----	
10	VIO	----------	-----	-----	
11	A19	----------	-----	-----	
12	A20	----------	-----	-----	
13	/WE	TP3014	C-4	WF1	MAIN P.C.B.(F)
14	/RESET	----------	-----	-----	
15	A21	----------	-----	-----	
16	A22	----------	-----	-----	
17	/WP//ACC	R3202(LEFT)	G-4	WF1	MAIN P.C.B.(C)
18	RY//BY	R3203(LEFT)	G-4	WF1	MAIN P.C.B.(C)
19	A18	----------	-----	-----	
20	A17	----------	-----	-----	
21	A16	----------	-----	-----	
22	A7	----------	-----	-----	
23	A6	----------	-----	-----	
24	A5	----------	-----	-----	
25	A4	----------	-----	-----	
26	A3	----------	-----	-----	
27	A2	----------	-----	-----	
28	A1	----------	-----	-----	
29	A0	TP3017	C-4	WF1	MAIN P.C.B.(F)
30	/CE	R3037(UPPER)	F-3	WF37	MAIN P.C.B.(C)
31	VSS	----------	-----	-----	
32	/OE	TP3015	C-4	WF1	MAIN P.C.B.(F)
33	DQ0	TP3018	C-4	WF1	MAIN P.C.B.(F)
34	DQ8	----------	-----	-----	
35	DQ1	----------	-----	-----	
36	DQ9	----------	-----	-----	
37	DQ2	----------	-----	-----	
38	DQ10	----------	-----	-----	
39	DQ3	----------	-----	-----	
40	DQ11	----------	-----	-----	
41	VCC	----------	-----	-----	
42	DQ4	----------	-----	-----	
43	DQ12	----------	-----	-----	
44	DQ5	----------	-----	-----	
45	DQ13	----------	-----	-----	
46	DQ6	----------	-----	-----	
47	DQ14	----------	-----	-----	
48	DQ7	----------	-----	-----	
49	DQ15	----------	-----	-----	
50	VSS	----------	-----	-----	
51	NC	----------	-----	-----	
52	VSS	----------	-----	-----	
53	NC	----------	-----	-----	
54	NC	----------	-----	-----	
55	NC	----------	-----	-----	
56	NC	----------	-----	-----	
57	NC	----------	-----	-----	
58	NC	----------	-----	-----	
59	NC	----------	-----	-----	
60	NC	----------	-----	-----	
61	NC	----------	-----	-----	
62	NC	----------	-----	-----	
63	NC	----------	-----	-----	
64	NC	----------	-----	-----	
65	NC	----------	-----	-----	
66	NC	----------	-----	-----	
67	NC	----------	-----	-----	
68	NC	----------	-----	-----	
69	NC	----------	-----	-----	
70	NC	----------	-----	-----	
71	NC	----------	-----	-----	
72	NC	----------	-----	-----	
73	NC	----------	-----	-----	
74	NC	----------	-----	-----	
75	NC	----------	-----	-----	
76	NC	----------	-----	-----	
77	NC	----------	-----	-----	
78	NC	----------	-----	-----	
79	NC	----------	-----	-----	
80	NC	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

Check Point of IC6001

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
1	NC	----------	-----	-----	
2	AVCC31	----------	-----	-----	
3	AVSS	----------	-----	-----	
4	DVCC2	----------	-----	-----	
5	NC	----------	-----	-----	
6	ENDIAN	R6051 (RIGHT)	C-5	WF1	MAIN P.C.B.(C)
7	PCTS3	R3917(LEFT)	B-4	WF1	MAIN P.C.B.(F)
8	PCTS0	R3914(LEFT)	B-4	WF1	MAIN P.C.B.(F)
9	PJ3	R6050 (RIGHT)	C-5	WF1	MAIN P.C.B.(C)
10	SDI / SDI DINT	R3919 (LOWER)	E-4	WF1	MAIN P.C.B.(F)
11	PCTS2	R3916(LEFT)	B-4	WF1	MAIN P.C.B.(F)
12	SDAO / SDAO TPC	R3920 (LOWER)	E-4	WF1	MAIN P.C.B.(F)
13	BW0	----------	-----	-----	
14	/DBEG	R3921 (LOWER)	E-4	WF1	MAIN P.C.B.(F)
15	DCLK	R3913(LEFT)	B-4	WF1	MAIN P.C.B.(F)
16	DISK ACCESS INFO	R6112 (RIGHT)	C-5	WF1	MAIN P.C.B.(C)
17	PCTS1	R3915(LEFT)	B-4	WF1	MAIN P.C.B.(F)
18	NC	----------	-----	-----	
19	DVSS	----------	-----	-----	
20	TEST1	----------	-----	-----	
21	BUSMODE	----------	-----	-----	
22	/DRESET	R3918 (LOWER)	E-4	WF1	MAIN P.C.B.(F)
23	TEST5	----------	-----	-----	
24	RESET	TP6006	D-2	WF1	MAIN P.C.B.(C)
25	PLL OFF	----------	-----	-----	
26	FVCC2	----------	-----	-----	
27	FVSS	----------	-----	-----	
28	NMI	----------	-----	-----	
29	BW1	----------	-----	-----	
30	DVCC2	----------	-----	-----	
31	DVCC31	----------	-----	-----	
32	TEST PORT	----------	-----	-----	
33	TEST-SERIAL	----------	-----	-----	
34	TEST PORT	----------	-----	-----	
35	TEST PORT	----------	-----	-----	
36	TEST PORT	----------	-----	-----	
37	TEST PORT	----------	-----	-----	
38	TEST-SERIAL	----------	-----	-----	
39	NC	----------	-----	-----	
40	PN0 / TEST-SERIAL	----------	-----	-----	
41	NC	----------	-----	-----	
42	NC	----------	-----	-----	
43	NC	----------	-----	-----	
44	NC	----------	-----	-----	
45	FVCC3	----------	-----	-----	
46	FVSS	----------	-----	-----	
47	DVSS	----------	-----	-----	
48	LCD RVS SW	R6046 (UPPER)	C-1	WF1	MAIN P.C.B.(C)
49	NC	----------	-----	-----	
50	COVER SW2	R6049 (RIGHT)	C-5	WF1	MAIN P.C.B.(C)
51	LCD OPEN SW	R6047 (UPPER)	C-1	WF1	MAIN P.C.B.(C)
52	NC	----------	-----	-----	
53	NC	----------	-----	-----	
54	PP1 / AV PLUG	R6045 (UPPER)	C-1	WF1	MAIN P.C.B.(C)
55	NC	----------	-----	-----	
56	NC	----------	-----	-----	
57	NC	----------	-----	-----	
58	NC	----------	-----	-----	
59	PB2 / ARM TMOUT	R3031 (UPPER)	E-5	WF1	MAIN P.C.B.(C)
60	PB3 ARM REQ	R3036(UPPER)	E-5	WF38	MAIN P.C.B.(C)

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
61	AFST	----------	-----	-----	
62	XRST	R6113(LEFT)	E-5	WF1	MAIN P.C.B.(C)
63	ARM RST	----------	-----	-----	
64	AFE CS	IC501-33	D-4	WF39	MAIN P.C.B.(F)
65	DRV G SHOCK	R6109 (LOWER)	C-4	WF1	MAIN P.C.B.(C)
66	PWM BIAS	R726 (LOWER)	H-3	WF40	MAIN P.C.B.(C)
67	ZENC	FP701-2	G-4	WF1	MAIN P.C.B.(F)
68	LENS DRV TST2	R6014 (RIGHT)	C-5	WF41	MAIN P.C.B.(C)
69	NARMTRST	R6127(LOWER)	E-5	WF1	MAIN P.C.B.(C)
70	DVCC32	----------	-----	-----	
71	HOLE BIAS	R702 (LOWER)	H-3	WF42	MAIN P.C.B.(C)
72	DRV EMG	----------	-----	-----	
73	SVD	R6102 (UPPER)	D-3	WF1	MAIN P.C.B.(C)
74	NC	----------	-----	-----	
75	CG CS	IC302-11	D-3	WF43	MAIN P.C.B.(F)
76	NC	----------	-----	-----	
77	HOLE GAIN	R704 (UPPER)	A-4	WF44	MAIN P.C.B.(F)
78	FENC	R6018 (RIGHT)	E-4	WF1	MAIN P.C.B.(F)
79	NC	----------	-----	-----	
80	LENS DRV TST1	R6015 (RIGHT)	C-5	WF1	MAIN P.C.B.(C)
81	LENS DRV RST	R6013 (LOWER)	C-3	WF1	MAIN P.C.B.(C)
82	LENS LED	R6007 (LEFT)	C-3	WF1	MAIN P.C.B.(C)
83	DVSS	----------	-----	-----	
84	IR REMOCON	R6033 (UPPER)	C-3	WF1	MAIN P.C.B.(C)
85	NC	----------	-----	-----	
86	NC	----------	-----	-----	
87	NC	----------	-----	-----	
88	RTC CS	IC6002-4	D-3	WF1	MAIN P.C.B.(C)
89	NC	----------	-----	-----	
90	NC	----------	-----	-----	
91	NC	----------	-----	-----	
92	NC	----------	-----	-----	
93	RTC SCK	IC6002-6	D-3	WF1	MAIN P.C.B.(C)
94	AFE SCK	IC302-9	D-3	WF45	MAIN P.C.B.(F)
95	AFE DO	IC302-10	D-3	WF46	MAIN P.C.B.(F)
96	NC	----------	-----	-----	
97	NC	----------	-----	-----	
98	RTC DI	R6040 (LOWER)	D-3	WF1	MAIN P.C.B.(C)
99	LENS DEBUG CLK	----------	-----	-----	
100	DVCC2	----------	-----	-----	
101	DVCC32	----------	-----	-----	
102	RTC DO	R6040 (UPPER)	D-3	WF1	MAIN P.C.B.(C)
103	UART RST	D6001-C	E-4	WF1	MAIN P.C.B.(C)
104	LENS DEBUG DO	----------	-----	-----	
105	UART DI	R6021 (LEFT)	E-5	WF1	MAIN P.C.B.(C)
106	UART DO	R6022 (LEFT)	E-5	WF1	MAIN P.C.B.(C)
107	NC	----------	-----	-----	
108	POWER ON	Q6001-B	D-3	WF1	MAIN P.C.B.(C)
109	LENS DRV DO	TP704	G-4	WF47	MAIN P.C.B.(C)
110	LIGHT ON	FP2-8	A-3	WF1	MAIN P.C.B.(F)
111	LENS DRV CS	TP706	G-4	WF48	MAIN P.C.B.(C)
112	NC	----------	-----	-----	
113	NC	----------	-----	-----	
114	CAM D3OFF H	IC301-3	C-4	WF1	MAIN P.C.B.(F)
115	CCD ON H	Q1044-B	F-2	WF1	MAIN P.C.B.(F)
116	LENS DRV CLK	TP705	G-4	WF49	MAIN P.C.B.(C)
117	DVSS	----------	-----	-----	
118	EEPROM CLK	IC6004-2	E-4	WF1	MAIN P.C.B.(F)
119	EEPROM DTO	IC6004-3	E-4	WF1	MAIN P.C.B.(F)
120	EEPROM DTI	IC6004-4	E-4	WF1	MAIN P.C.B.(F)

(C): COMPONENT SIDE (F): FOIL SIDE

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
121	CG RST	R6004 (LEFT)	E-1	WF1	MAIN P.C.B.(C)
122	NC	----------	-----	-----	
123	IN SHIMUKE	R6131 (LOWER)	C-3	WF1	MAIN P.C.B.(C)
124	EEPROM CS	IC6004-1	E-4	WF1	MAIN P.C.B.(F)
125	EEPROM PROTECT	IC6004-6	E-4	WF1	MAIN P.C.B.(F)
126	RSTPUP	----------	-----	-----	
127	LANG SHIMUKE	R6130 (RIGHT)	E-1	WF1	MAIN P.C.B.(C)
128	NTSC L	R6125 (LOWER)	D-3	WF1	MAIN P.C.B.(C)
129	DVCC32	----------	-----	-----	
130	NC	----------	-----	-----	
131	NC	----------	-----	-----	
132	S/S SW	R6036 (LEFT)	D-3	WF1	MAIN P.C.B.(C)
133	NC	----------	-----	-----	
134	EVF BL	Q1026-B2	C-2	WF1	MAIN P.C.B.(C)
135	NC	----------	-----	-----	
136	NC	----------	-----	-----	
137	NC	----------	-----	-----	
138	NC	----------	-----	-----	
139	NC	----------	-----	-----	
140	NC	----------	-----	-----	
141	DVSS	----------	-----	-----	
142	NC	----------	-----	-----	
143	NC	----------	-----	-----	
144	DVCC33	----------	-----	-----	
145	LCD ON H	Q1030-B	C-1	WF1	MAIN P.C.B.(C)
146	NC	----------	-----	-----	
147	NC	----------	-----	-----	
148	NC	----------	-----	-----	
149	NC	----------	-----	-----	
150	PHOTO SW	R6041 (LEFT)	E-4	WF1	MAIN P.C.B.(C)
151	NC	----------	-----	-----	
152	NC	----------	-----	-----	
153	TEST4	----------	-----	-----	
154	ADM[2]	----------	-----	-----	
155	NC	----------	-----	-----	
156	NC	----------	-----	-----	
157	NC	----------	-----	-----	
158	TEST3	----------	-----	-----	
159	ADM[0]	----------	-----	-----	
160	DVSS	----------	-----	-----	
161	NC	----------	-----	-----	
162	ADM[1]	----------	-----	-----	
163	ADM[6]	----------	-----	-----	
164	ADM[3]	----------	-----	-----	
165	ADM[5]	----------	-----	-----	
166	ADM[4]	----------	-----	-----	
167	FVSS	----------	-----	-----	
168	FVCC2	----------	-----	-----	
169	ADM[9]	----------	-----	-----	
170	TEST0	----------	-----	-----	
171	ADM[8]	----------	-----	-----	
172	ADM[7]	----------	-----	-----	
173	ADM[10]	----------	-----	-----	
174	ADM[13]	----------	-----	-----	
175	ADM[11]	----------	-----	-----	
176	ADM[12]	----------	-----	-----	
177	DVCC33	----------	-----	-----	
178	NC	----------	-----	-----	
179	ADM[15]	----------	-----	-----	
180	NC	----------	-----	-----	

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
181	DVSS	----------	-----	-----	
182	UP CS	----------	-----	-----	
183	WEH	TP3005	F-4	WF50	MAIN P.C.B.(C)
184	XWAIT	TP3009	F-4	WF51	MAIN P.C.B.(C)
185	RE	TP3007	F-4	WF52	MAIN P.C.B.(C)
186	FVSS	----------	-----	-----	
187	FVCC2	----------	-----	-----	
188	ADM[14]	----------	-----	-----	
189	NC	----------	-----	-----	
190	NC	----------	-----	-----	
191	NC	----------	-----	-----	
192	ALE	TP3004	E-4	WF53	MAIN P.C.B.(C)
193	WEL	TP3006	F-4	WF54	MAIN P.C.B.(C)
194	TEST2	----------	-----	-----	
195	DVCC33	----------	-----	-----	
196	DVCC2	----------	-----	-----	
197	NC	----------	-----	-----	
198	NC	----------	-----	-----	
199	NC	----------	-----	-----	
200	NC	----------	-----	-----	
201	CVCCH	----------	-----	-----	
202	CAP1	----------	-----	-----	
203	CAP2	----------	-----	-----	
204	NC	----------	-----	-----	
205	NC	----------	-----	-----	
206	NC	----------	-----	-----	
207	NC	----------	-----	-----	
208	NC	----------	-----	-----	
209	NC	----------	-----	-----	
210	DVCC34	----------	-----	-----	
211	CVCC2	----------	-----	-----	
212	X1	R6069 (LOWER)	D-5	WF55	MAIN P.C.B.(C)
213	CVSS	----------	-----	-----	
214	X2	R6069 (UPPER)	D-5	WF55	MAIN P.C.B.(C)
215	NC	----------	-----	-----	
216	NC	----------	-----	-----	
217	NC	----------	-----	-----	
218	FRP	R3035 (LEFT)	E-5	WF56	MAIN P.C.B.(C)
219	NC	----------	-----	-----	
220	CAM WAKEUP	R3034(LEFT)	E-5	WF1	MAIN P.C.B.(C)
221	ARM UPDATE	TP3021	D-2	WF1	MAIN P.C.B.(C)
222	HOST REQ	R3043(UPPER)	E-5	WF57	MAIN P.C.B.(C)
223	DVSS	----------	-----	-----	
224	NC	----------	-----	-----	
225	NC	----------	-----	-----	
226	CAM VD	IC302-3	D-3	WF58	MAIN P.C.B.(F)
227	CAM IRQ	TP3010	F-4	WF59	MAIN P.C.B.(C)
228	NC	----------	-----	-----	
229	TIMER INT	R6068(LOWER)	D-3	WF1	MAIN P.C.B.(C)
230	EJECT SW	R6086 (LEFT)	E-4	WF1	MAIN P.C.B.(F)
231	NC	----------	-----	-----	
232	COVER SW	R6079 (LOWER)	E-4	WF1	MAIN P.C.B.(F)
233	PC ACCESS INFO	R6115(LEFT)	E-5	WF1	MAIN P.C.B.(C)
234	NC	----------	-----	-----	
235	POWER SW	R6078 (LOWER)	E-5	WF1	MAIN P.C.B.(F)
236	NC	----------	-----	-----	
237	NC	----------	-----	-----	
238	NC	----------	-----	-----	
239	NC	----------	-----	-----	
240	DVCC34	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

CSP IC		Check point		WF NO.	Remarks
Pin	Name				
241	NC	----------	-----	-----	
242	NC	----------	-----	-----	
243	SD ACCESS INFO	R6114 (LEFT)	E-5	WF1	MAIN P.C.B.(C)
244	DISC ACCESS LED	Q6006-B	E-4	WF1	MAIN P.C.B.(F)
245	NC	----------	-----	-----	
246	NC	----------	-----	-----	
247	POWER LED	Q6005-B	E-4	WF1	MAIN P.C.B.(F)
248	PC CONNECT LED	----------	-----	-----	
249	CARD ACCESS LED	Q6003-B	D-3	WF1	MAIN P.C.B.(C)
250	DVSS	----------	-----	-----	
251	NC	----------	-----	-----	
252	DVCC2	----------	-----	-----	
253	AVSS	----------	-----	-----	
254	FNO	C6021 (LOWER)	D-5	WF1	MAIN P.C.B.(C)
255	AVCC32	----------	-----	-----	
256	IR OUT	R6101(LEFT)	E-5	WF1	MAIN P.C.B.(C)
257	ZOOM SW	R6076 (LOWER)	D-5	WF1	MAIN P.C.B.(C)
258	BATT REF	----------	-----	-----	
259	REG3VDET	R6073 (UPPER)	D-5	WF1	MAIN P.C.B.(C)
260	BATT D	R6081 (UPPER)	F-5	WF1	MAIN P.C.B.(F)
261	BATT V	R6080 (LEFT)	F-5	WF1	MAIN P.C.B.(F)
262	AVSS	----------	-----	-----	
263	UNI REMO	R6119 (UPPER)	D-5	WF1	MAIN P.C.B.(C)
264	ADKEY5	R6091(LOWER)	C-1	WF1	MAIN P.C.B.(C)
265	ADKEY4	R6095(LOWER)	C-1	WF1	MAIN P.C.B.(C)
266	YLEVEL	R3315(LEFT)	C-2	WF1	MAIN P.C.B.(F)
267	SENS TMP LENS	R6071 (LOWER)	D-5	WF1	MAIN P.C.B.(C)
268	ADKEY3	R6094(LOWER)	C-1	WF1	MAIN P.C.B.(C)
269	ADKEY1	R6092(LOWER)	C-1	WF1	MAIN P.C.B.(C)
270	ADKEY2	R6093(LOWER)	C-1	WF1	MAIN P.C.B.(C)
271	KIBAN	----------	-----	-----	
272	P97	----------	-----	-----	
273	P93	----------	-----	-----	
274	P94	----------	-----	-----	
275	P96	----------	-----	-----	
276	P90	----------	-----	-----	
277	P95	----------	-----	-----	
278	P91	----------	-----	-----	
279	P92	----------	-----	-----	
280	VREFL	----------	-----	-----	
281	VREFH	----------	-----	-----	
282	NO PIN	----------	-----	-----	
283	NO PIN	----------	-----	-----	
284	NO PIN	----------	-----	-----	

(C): COMPONENT SIDE (F): FOIL SIDE

MAIN PARTS PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	④	Top Cover Unit	❶	(519), 5(533)	1
2	-	Front Case Ass'y	❶	3(519), 2(533), FP2, Hand Strap	2
3	-	Side R & LCD Ass'y	❶	3(519), 3(533), FP1, FP4	3
4	-	Rear Case & EVF Ass'y	❶	6(519), FP5, P1	4
5	-	Lens Ass'y	❶	2(519), FP301, FP701	5
6	-	Main P.C.B. & Jack P.C.B.	❶	(419), 5(519), FP3, B1	6
7	③	Disc Cover Lock Unit	❶	(419), (533), (544), Connector	7
8	②	DVD Drive Frame Unit	❶	2(519)	8
9	①	Side L/Disk Unit	❶	2(519), (533), (7)	-

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404)= 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)
F: Refer to "Notes in chart."

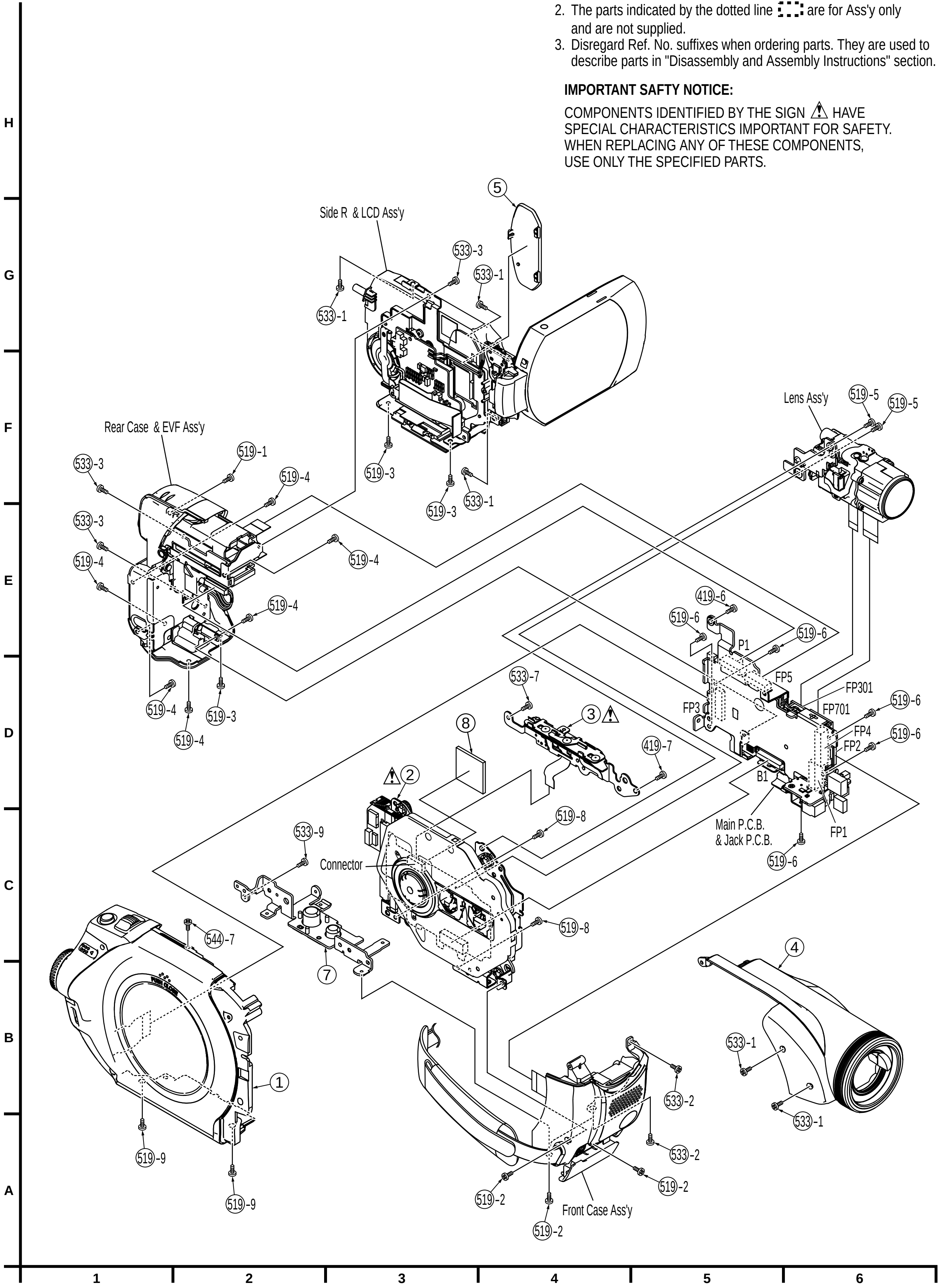
❶ MAIN PARTS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.

IMPORTANT SAFTY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.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Side R & LCD Ass'y
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Lens Ass'y
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Rear Case & EVF Ass'y
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Main P.C.B.
& Jack P.C.B.
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Connector
(519)-8
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Front Case Ass'y
(519)-2

FRONT CASE, MAIN P.C.B. & JACK P.C.B.

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(E30)	Jack P.C.B	❷	(519), B2	9
2	(E10)	Main P.C.B	❷	-----	-

A B C D E F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(E20)	Front P.C.B.	❷	5(533)	10
2	(52)	**(For models with Light)** LED Light Lens	❷	-----	10
3	(51)	Front Case Unit	❷	-----	10

A B C D E F

How to read chart shown above:

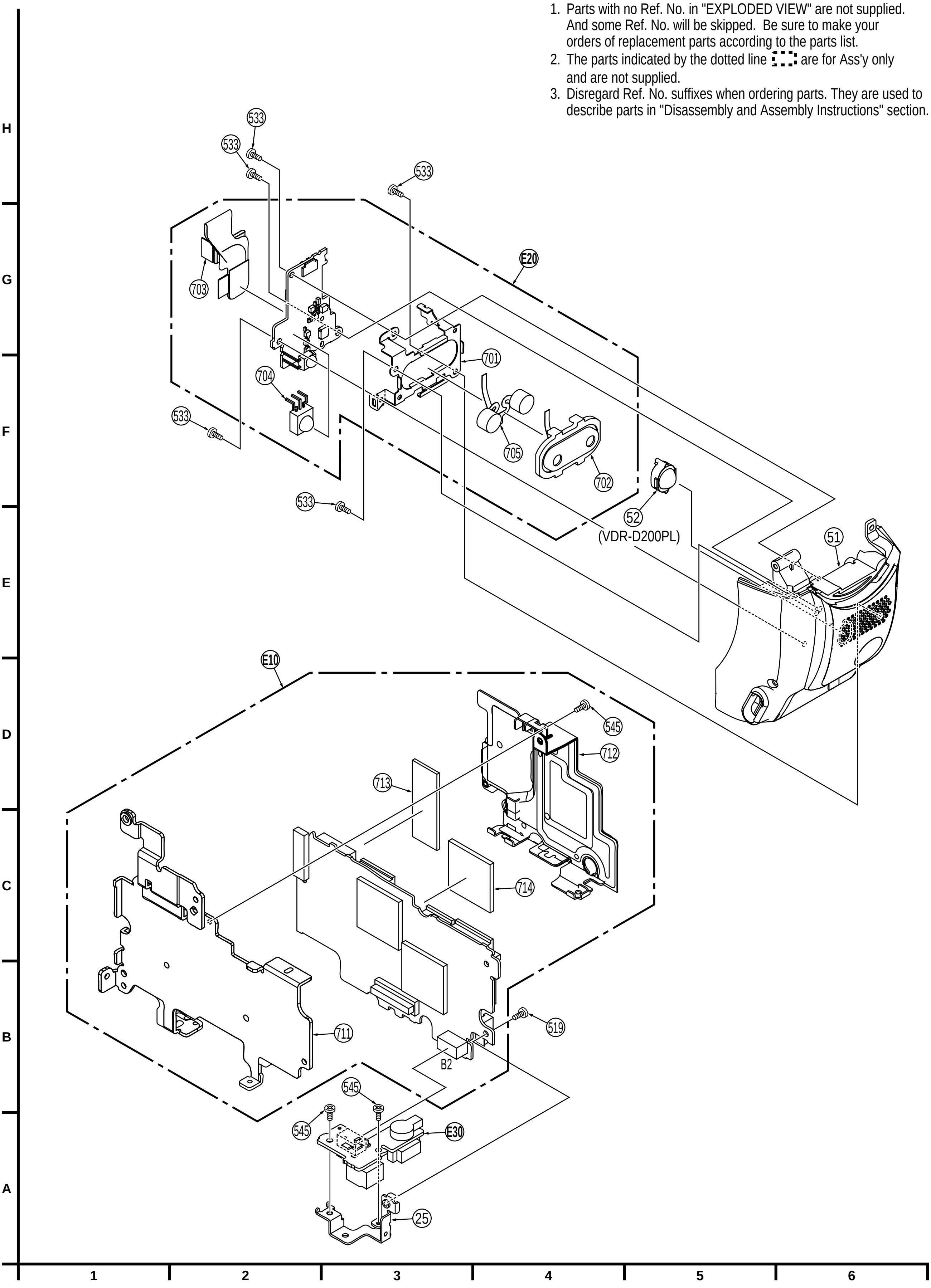
A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

F: Refer to "Notes in chart."

❷ FRONT CASE, MAIN P.C.B. AND JACK P.C.B. SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝⁝⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.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(VDR-D200PL)
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712
713
714
711
519
B2
545
545
E30
25

SIDE CASE R PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	-	Side R/SD Ass'y	❸	(408), (457)	11
2	㊺	Speaker	❸	2(533), (46)	11
3	(E60)	Side R P.C.B.	❸	2(533), Unsolder	11
4	(E61)	Open Switch P.C.B.	❸	(533), (48)	11

A B C D E F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

F: Refer to "Notes in chart."

LCD PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㉝	LCD Case A Unit	❸	2(519), 2(546), 7(L-1)	-
2	㉜	LCD Shaft Case Unit	❸	FP8101	-
3	(E40)	LCD Backlight P.C.B.	❸	(533), (L-2), FP8102	12
4	㉞	LCD Case B	❸	4(L-3)	12
5	-	LCD Panel Ass'y	❸	3(L-4)	12
	㉟	LCD Shield Plate Unit			

A B C D E F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㊷	LCD Panel	❸	-----	13
2	㊴	Reflect Sheet	❸	(L-5)	13
3	㊲	Lead Light Panel	❸	-----	13
4	㊳	Diffusion Sheet	❸	-----	13
5	㊵	BEF Sheet	❸	-----	13
6	㊶	BEF Sheet A	❸	-----	13
7	㊱	LCD Panel Holder Unit	❸	-----	13

A B C D E F

How to read chart shown above:

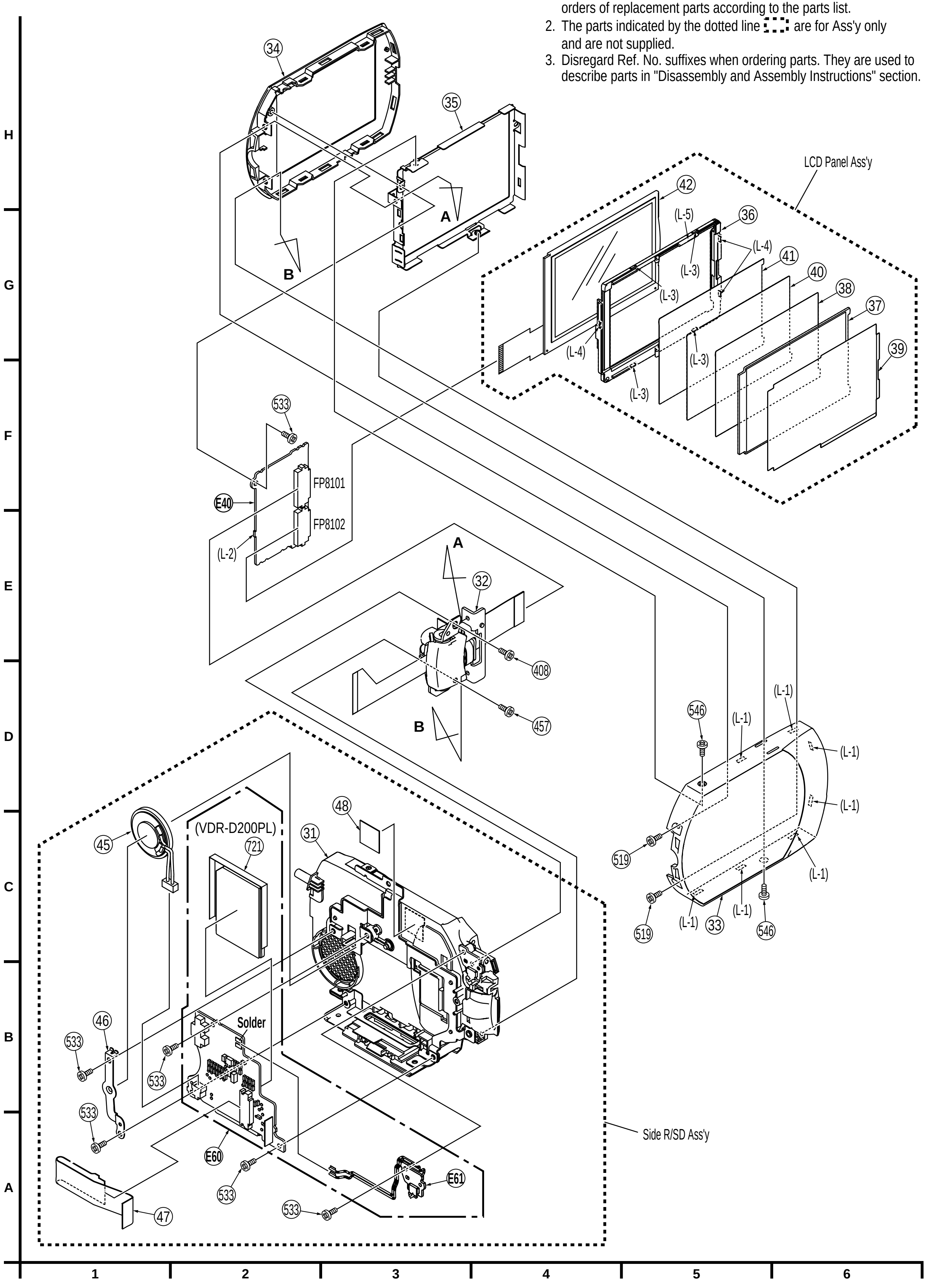
A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

F: Refer to "Notes in chart."

❸ SIDE CASE R AND LCD SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.



H
G
F
E
D
C
B
A
1
2
3
4
5
6
34
35
A
B
LCD Panel Ass'y
42
(L-5)
36
(L-4)
41
(L-3)
40
(L-3)
38
37
(L-4)
(L-3)
39
(L-3)
533
FP8101
E40
FP8102
(L-2)
A
32
408
B
457
546
(L-1)
(L-1)
(L-1)
(L-1)
48
(VDR-D200PL)
721
31
45
519
(L-1)
519
(L-1)
(L-1)
33
546
46
533
Solder
533
533
E60
533
E61
533
47
Side R/SD Ass'y

CCD & LENS PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(E50)	CCD P.C.B.	❹	2(536)	14
2	(64)	Filter Rubber	❹	-----	14
3	(63)	Optical Filter	❹	-----	14

↑ ↑ ↑ ↑ ↑ ↑

A B C D E F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㉖	Lens Holder	❹	2(533)	-
2	(65)	Zoom Motor Unit	❹	2(538), Unsolder	15
3	(66)	Focus Motor Unit	❹	3(538), Unsolder	15

↑ ↑ ↑ ↑ ↑ ↑

A B C D E F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.

B: Ref No.

C: Part to be removed or installed.

D: Section No.

E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

F: Refer to "Notes in chart."

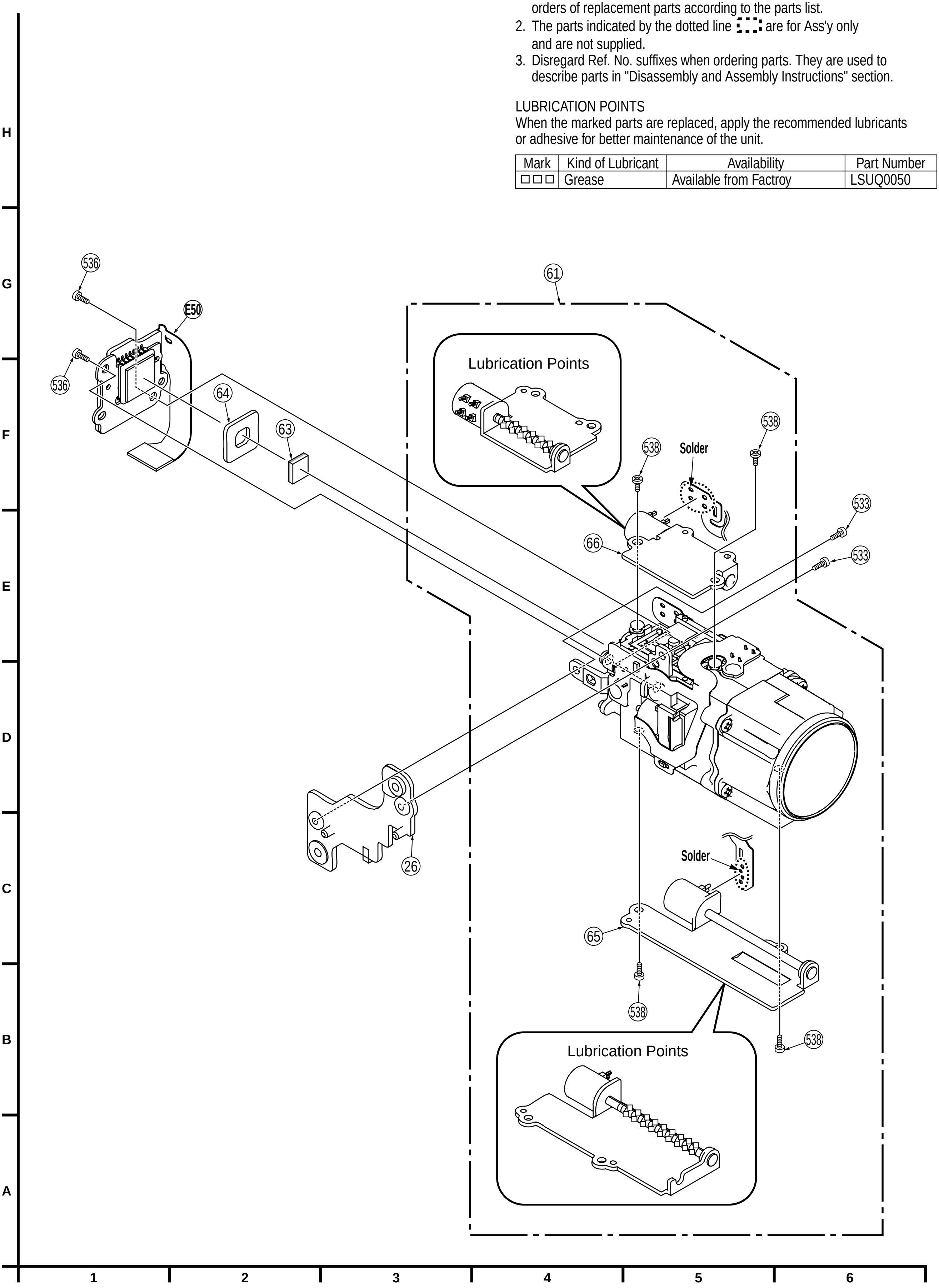
❹ CCD AND LENS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.

LUBRICATION POINTS
When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

Mark	Kind of Lubricant	Availability	Part Number
□□□	Grease	Available from Factroy	LSUQ0050


H
G
F
E
D
C
B
A
1
2
3
4
5
6
536
536
E50
64
63
61
Lubrication Points
538
538
Solder
533
533
66
26
Solder
65
538
538
Lubrication Points

REAR CASE & EVF PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㉘	EVF Unit	❺	2(433), (L-1)	16
2	㉗	Rear Case Unit	❺	-----	16

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	⑬ ⑮	EVF Base Frame EVF Earth Plate	❺	FP901	17
2	⑰	EVF F.P.C.	❺	-----	17

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	⑱	Eye Cap	❺	2(533), (L-2)	18
2	㉓	EVF Lens Unit	❺	-----	18
3	㉒	Eye Sight Lever	❺	-----	18

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

How to read chart shown above:

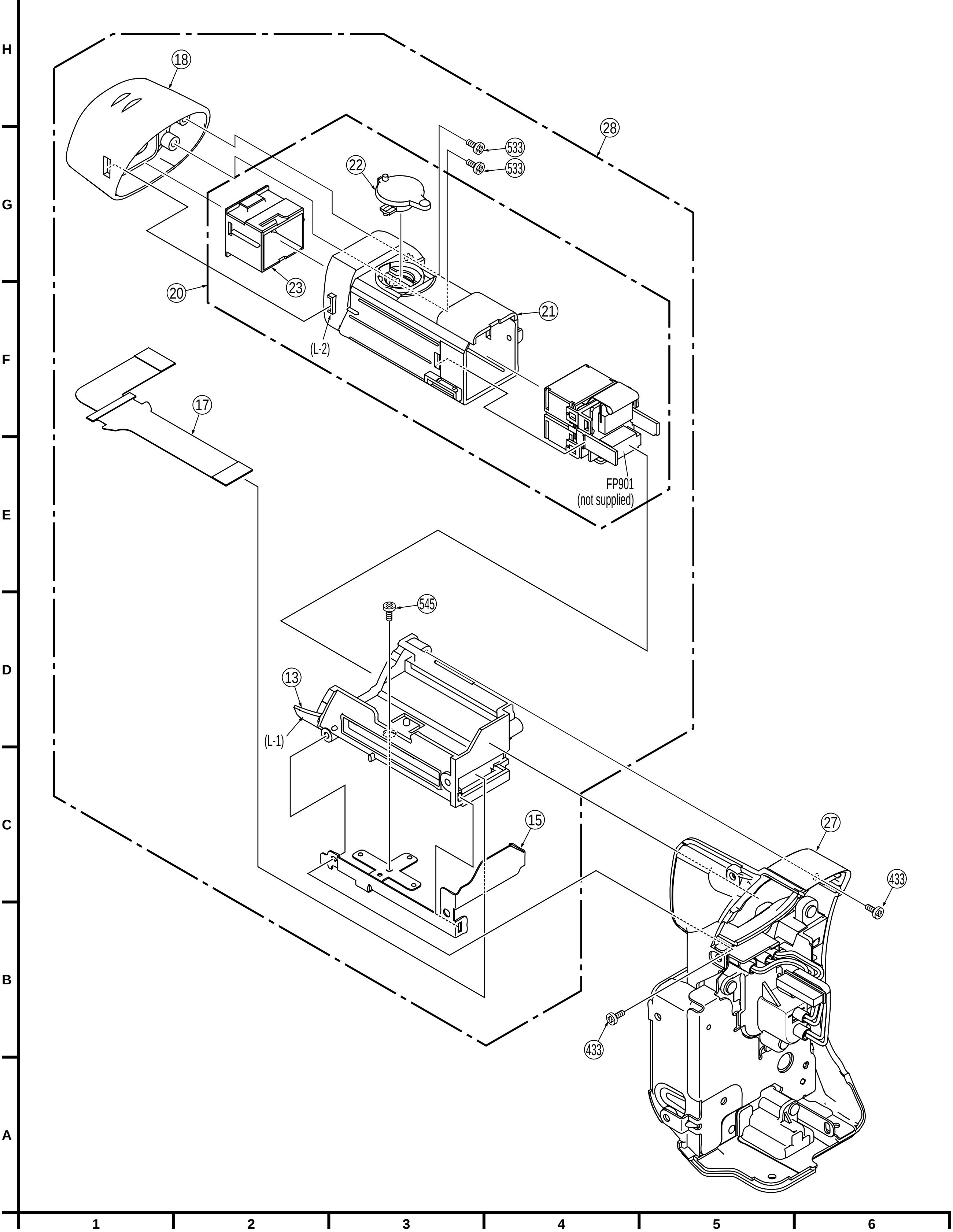
A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

F: Refer to "Notes in chart."

❺ REAR CASE AND EVF SECTION

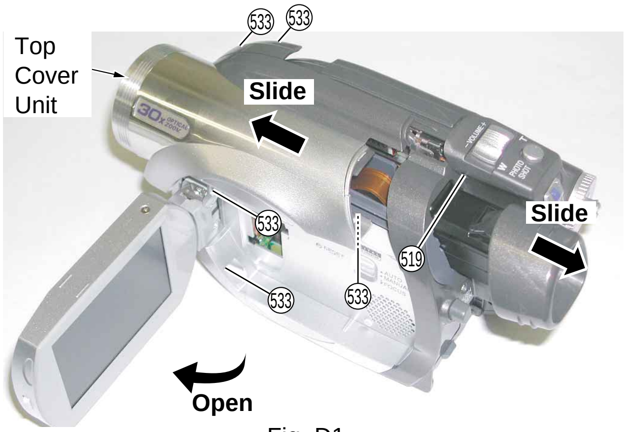
Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly and Assembly Instructions" section.


H
G
F
E
D
C
B
A
18
28
533
533
22
20
23
21
(L-2)
17
FP901
(not supplied)
545
13
(L-1)
15
27
433
433
1
2
3
4
5
6

Notes in chart

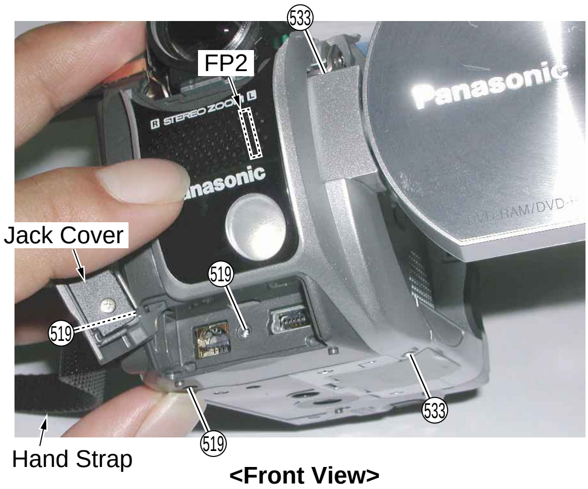
1. **Removal of Top Cover Unit**
   1) Open the LCD and remove the 5 Screws (533).
   2) Slide the EVF to extend it, then remove Screw (519).
   3) Pull and carefully slide the Top Cover Unit.



533
533
Top Cover Unit
Slide
533
Slide
519
533
533
Open

Fig. D1

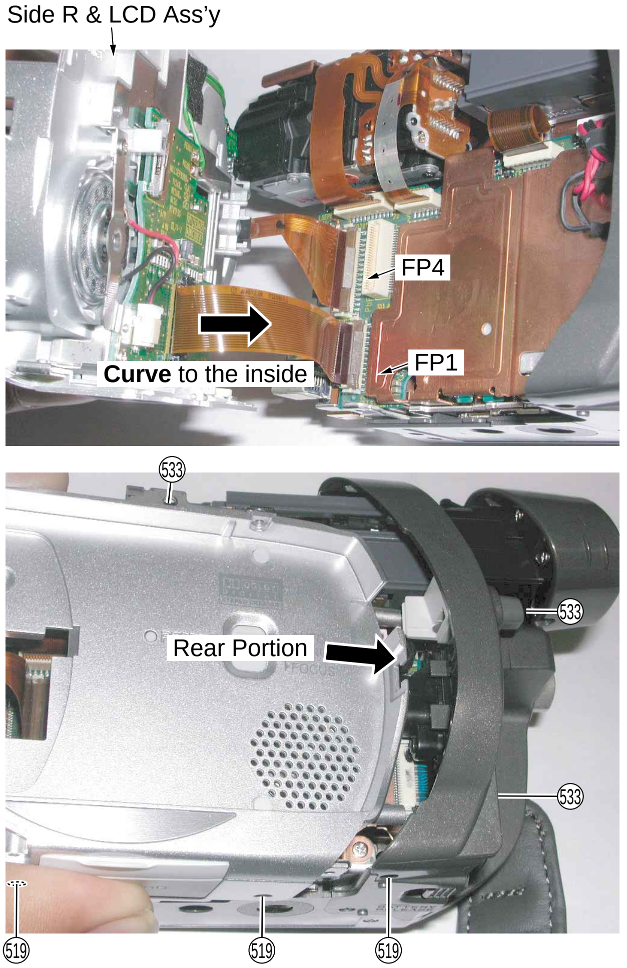
2. **Removal of Front Case Ass'y**
   1) Open the Jack Cover, then remove Screw (519).
   2) Remove the 4 Screws (519, 533).
   3) Disconnect the Front F.P.C. from Connector FP2.
   4) Remove the Front Case Ass'y while releasing the Hand Strap.



533
FP2
Jack Cover
519
519
533
519
Hand Strap
<Front View>

Fig. D2

3. **Installation of Side R & LCD Ass'y**
   1) Connect the LCD F.P.C. and Side R F.P.C. to the Connectors FP4 and FP1 so as not to damage the F.P.C.s.
   2) Secure Rear Portion, and tighten 6 Screws (519, 533)



Side R & LCD Ass'y
FP4
Curve to the inside
FP1
533
533
Rear Portion
533
519
519
519

Fig. D3

4. **Removal of Rear Case & EVF Ass'y**
   1) Disconnect the EVF F.P.C. and the Connector Cable from Connector FP5 and P1.
   2) Remove the 6 Screws (519).

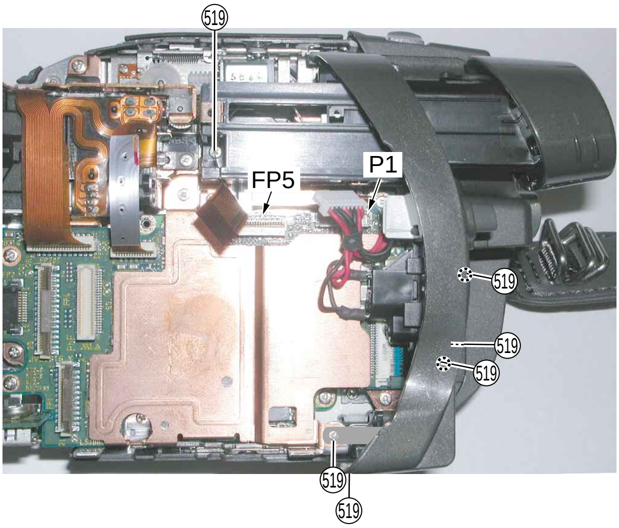

519
P1
FP5
519
519
519
519
519

Fig. D4

5. **Installation of Lens Ass'y**
   Take care not to damage the motor leads.
   1) Install the Lens Ass'y with the 2 holes and 2 Screws (519).
   2) Connect the F.P.C.s to Connector FP301, FP701.

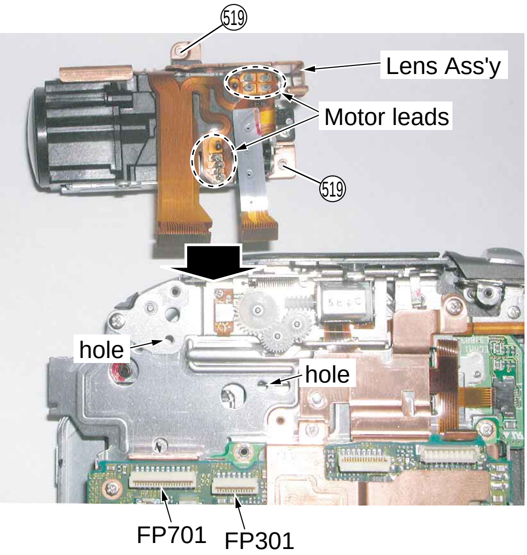

519
Lens Ass'y
Motor leads
519
hole
hole
FP701
FP301

Fig. D5

6. **Removal of Main P.C.B. and Jack P.C.B.**
   1) Remove the 6 Screws (419, 519).
   2) Disconnect the Zoom Switch F.P.C. from Connector FP3.
   3) Remove the Main P.C.B. and Jack P.C.B. to disconnect Connector B1 (B to B Connector).

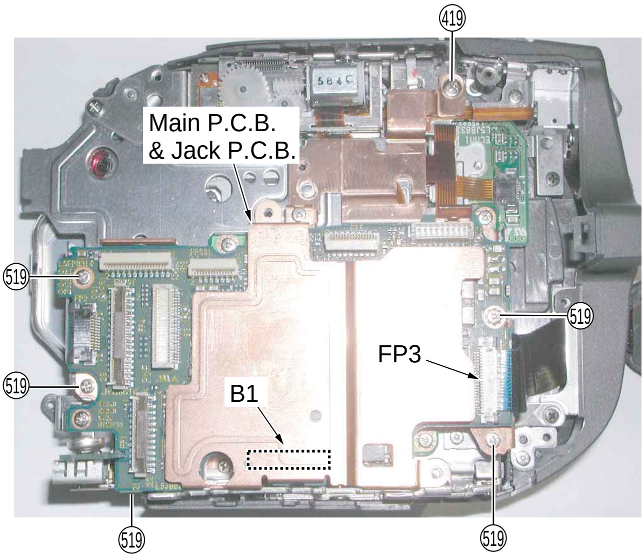

419
Main P.C.B.
& Jack P.C.B.
519
519
FP3
519
B1
519
519

Fig. D6

7. **Removal of Disc Cover Lock Unit**
   1) Remove the 3 Screws (419, 533, 544)
   2) Slide the Lock Lever to open the Disc Cover.
   3) Disconnect the F.P.C. from Connector on the DVD Drive Frame Unit.
   4) Remove the Disc Cover Lock Unit. Take care not to damage the 2 Switches.

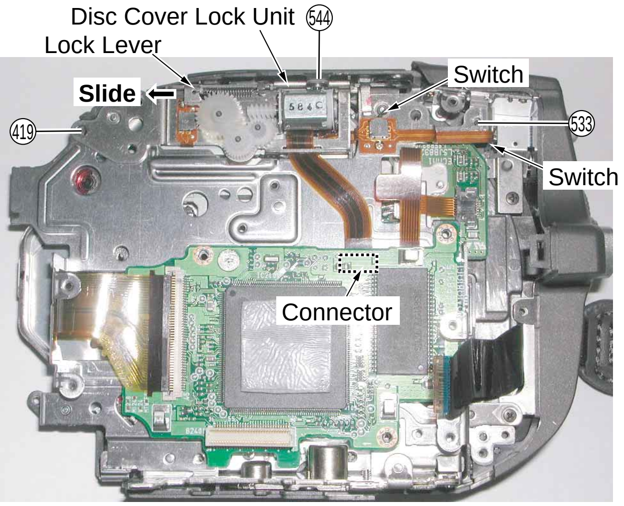

Disc Cover Lock Unit
544
Lock Lever
Slide
Switch
419
533
Switch
Connector

Fig. D7

8. DVD Drive Frame Unit Caution

Caution

⚠ Laser light striking the eye may cause your eyesight to be lost: For safety, be sure to remove any power supply (AC adaptor/charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M

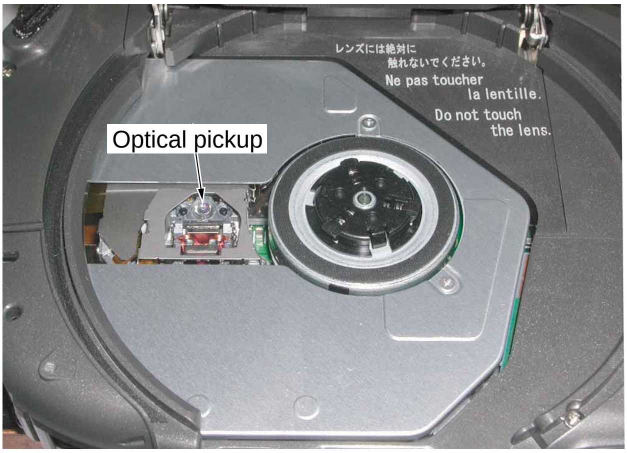

レンズには絶対に
触れないでください。
Ne pas toucher
la lentille.
Do not touch
the lens.
Optical pickup

Fig. D8-1

Installation of DVD Drive Frame Unit

1) Position the DVD Drive Frame Unit correctly so that the Zoom Switch F.P.C. is not pinned beneath it.
2) Tighten the 2 Screws (519).

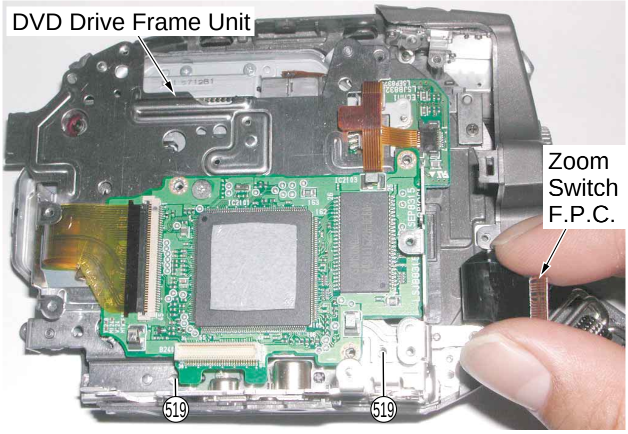

DVD Drive Frame Unit
Zoom Switch F.P.C.
519
519

Fig. D8-2

9. Installation of Jack P.C.B.

1) Connect the Connector B2 (B to B Connector).
2) Tighten Screw (519).

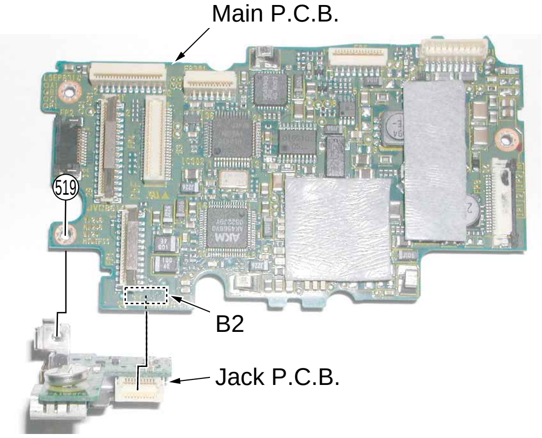

Main P.C.B.
519
B2
Jack P.C.B.

Fig. D9

10. Installation of Front P.C.B.

1) Install the LED Light Lens **(For models with Light)** into the Front Case Unit.
2) Install the Front P.C.B. with 2 bosses of the LED Light Lens and the 5 Screws (533).

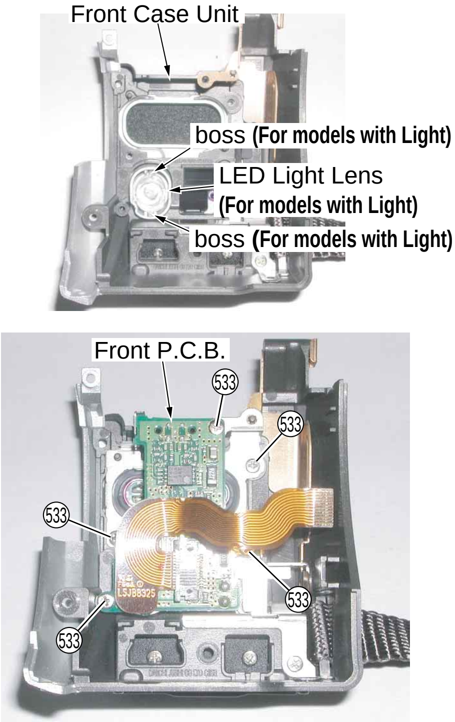

Front Case Unit
boss (For models with Light)
LED Light Lens
(For models with Light)
boss (For models with Light)
Front P.C.B.
533
533
533
533
533

Fig. D10

11. Removal of Side R/SD Ass'y

1) Close the LCD (Ass'y).
2) Remove the 2 Screws (408, 457) as shown below.

Installation of Side R/SD Ass'y

1) Pass the LCD F.P.C. into the slot.
2) Install the LCD (Ass'y) into the Side R/SD Ass'y so as not to damage the LCD open/close SW.

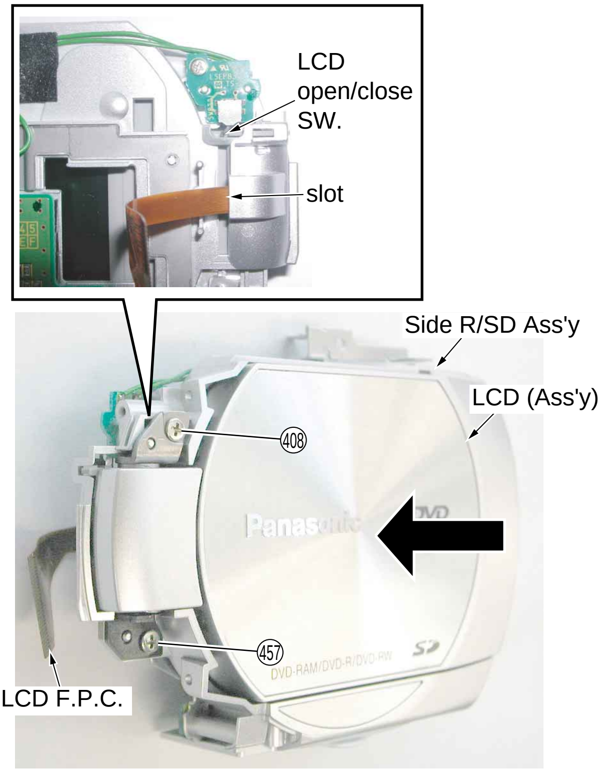

LCD open/close SW.
slot
Side R/SD Ass'y
LCD (Ass'y)
(408)
(457)
LCD F.P.C.

Fig. D11-1

Removal of Speaker, Side R P.C.B. and Open Switch P.C.B.

1) Remove the 2 Screws (533) and remove the Speaker Spring Plate.
2) Disconnect Connector P6301, then remove the Speaker.
3) Remove the 2 Screws (533), then unsolder the connector leads to remove the Side R P.C.B.
4) Remove Screw (533) and sheet, then remove the Open Switch P.C.B.

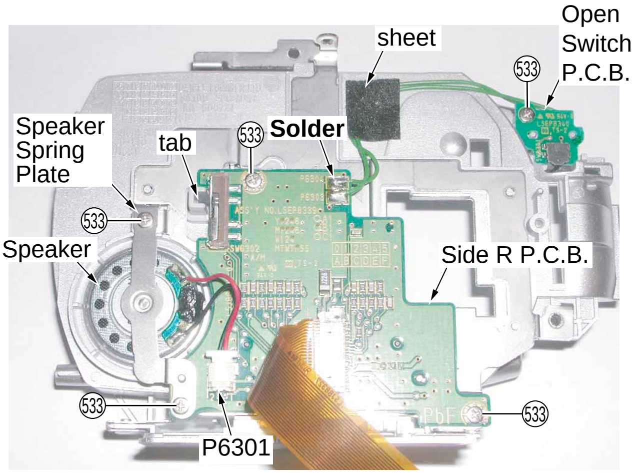

sheet
Open Switch P.C.B.
(533)
Speaker Spring Plate
tab
(533)
Solder
(533)
Speaker
Side R P.C.B.
(533)
(533)
P6301

Fig. D11-2

12. Installation of LCD Backlight P.C.B., LCD Panel Ass'y, LCD Shield Case Unit and LCD Case B

Be extremely careful of LEDs when handling the LCD Backlight P.C.B.

Install in order shown below.

1) Install the LCD Shield Case Unit into the LCD Case B with 2 bosses.
2) Install the LCD Panel Ass'y onto the LCD Case B with the 7 Locking Tabs (L-3), (L-4) while carefully bending the LCD F.P.C. at its base so as not to damage it.
3) Install the LCD Backlight P.C.B. onto the LCD Panel Ass'y with the Locking Tab (L-2).
4) Tighten Screw (533) while keeping the LCD Backlight P.C.B. pressed toward the right. Then, connect the F.P.C. to Connector FP8102.

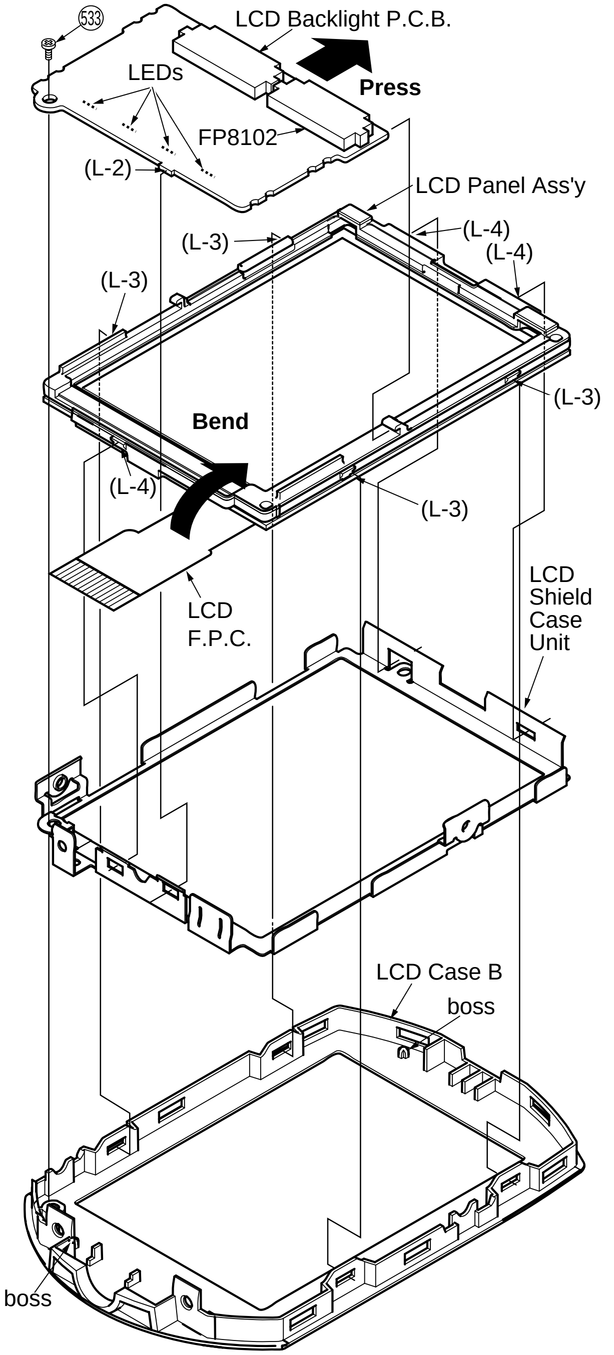

(533)
LCD Backlight P.C.B.
Press
LEDs
FP8102
(L-2)
LCD Panel Ass'y
(L-4)
(L-4)
(L-3)
(L-3)
(L-3)
Bend
(L-4)
(L-3)
LCD F.P.C.
LCD Shield Case Unit
LCD Case B
boss
boss

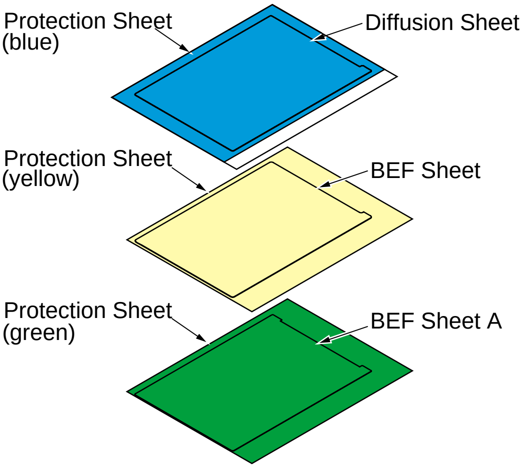
Fig. D12

13. Installation of LCD Panel, Reflect Sheet, Lead Light Panel, Diffusion Sheet, BEF Sheet, BEF Sheet A and Panel Holder Unit

a. When replacing the LCD Panel, the Diffusion Sheet, the BEF Sheet and the BEF Sheet A, be sure to remove the Protection Sheets.

To distinguish Sheets from their Protection Sheets:

- A blue Protection Sheet is affixed to both faces of the Diffusion Sheet.
- A yellow Protection Sheet is affixed to both faces of the BEF Sheet.
- A green Protection Sheet is affixed to both faces of the BEF Sheet A.


Protection Sheet (blue)
Diffusion Sheet
Protection Sheet (yellow)
BEF Sheet
Protection Sheet (green)
BEF Sheet A

b. Use extreme care when handling the LCD Panel, the Reflect Sheet, the Lead Light Panel, the Diffusion Sheet, the BEF Sheet and the BEF Sheet A to avoid damage, dust, and spots (especially fingerprints, etc.)

Install in order shown below.

1) Install in order, the BEF Sheet A, BEF Sheet and Diffusion Sheet while inserting the corners of each sheet into the slots of the Panel Holder Unit.
2) Install the Lead Light Panel while inserting the corners into the slots of the Panel Holder Unit.
3) Place the Reflect Sheet so it is aligned with the edge of the Panel Holder Unit, then install it using the adhesive tape portions of the Reflect Sheet.

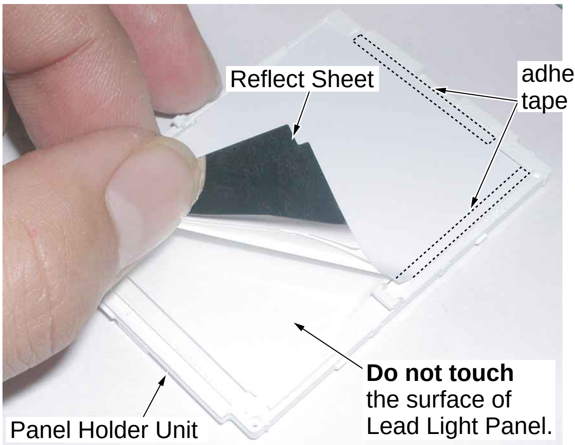

Reflect Sheet
adhesive tape
Panel Holder Unit
Do not touch the surface of Lead Light Panel.

Fig. D13-1

4) Install the LCD Panel with adhesive tape so that the cross marks are positioned in the center of the holes in the Panel Holder Unit.

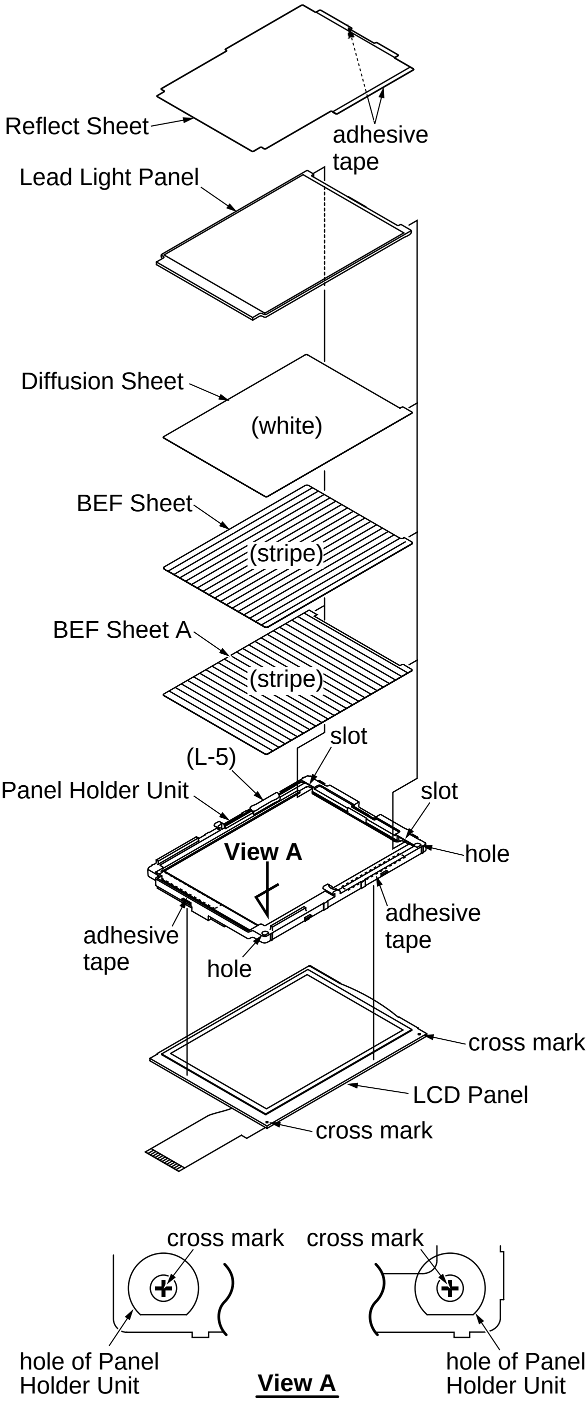

Reflect Sheet
adhesive tape
Lead Light Panel
Diffusion Sheet
(white)
BEF Sheet
(stripe)
BEF Sheet A
(stripe)
slot
(L-5)
Panel Holder Unit
slot
View A
hole
adhesive tape
adhesive tape
hole
cross mark
LCD Panel
cross mark
cross mark
cross mark
hole of Panel Holder Unit
View A
hole of Panel Holder Unit

Fig. D13-2

14. Removal of CCD P.C.B., Filter Rubber and Optical Filter

CAUTION:

1) When removing the CCD P.C.B., take care that the Optical Filter does not fall out.
2) Use extreme caution when removing the CCD P.C.B. as it is easily damaged by static electricity. Use a Wrist Strap while removing and installing.
3) Do not touch the CCD window surface.

Installation of CCD P.C.B., Filter Rubber and Optical Filter

Install in order shown below.

1) Install the Optical Filter correctly.
   Note: Make sure that no dust gets on the Optical Filter or in the Lens Unit. Clean the Optical Filter with lens cleaning paper dampened with lens cleaner if necessary.
2) Install the Filter Rubber on the Optical Filter correctly as shown below.
   Note: Make sure that no dust gets on the Filter Rubber.
3) Install the CCD P.C.B. into the Lens Unit. Then, tighten the 2 Screws (536), and secure the CCD F.P.C. on the pin.
   Note: Do not touch the Lens Surface. Clean the surface with lens cleaning paper dampened with lens cleaner if necessary.

15. Installation of Zoom Motor Unit/Focus Motor Unit

Install the Zoom Motor Unit/Focus Motor Unit so that the Shaft of the Zoom Motor Unit/Focus Motor Unit is set in the Holder.

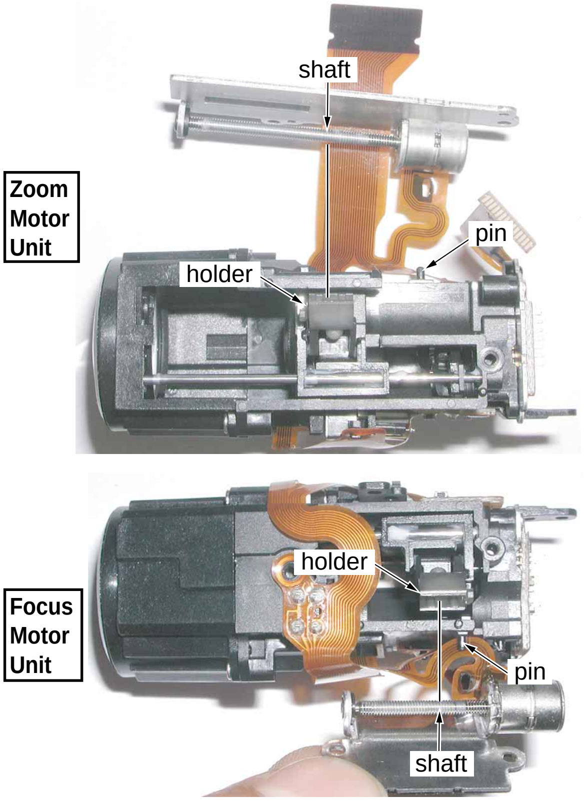


Fig. D14

16. Removal of EVF Unit

1) Remove the 2 Screws (433).
2) Slide to extend the EVF Unit.
3) Push to release the Locking Tab (L-1), and remove the EVF Unit. Take care not to damage the EVF F.P.C.

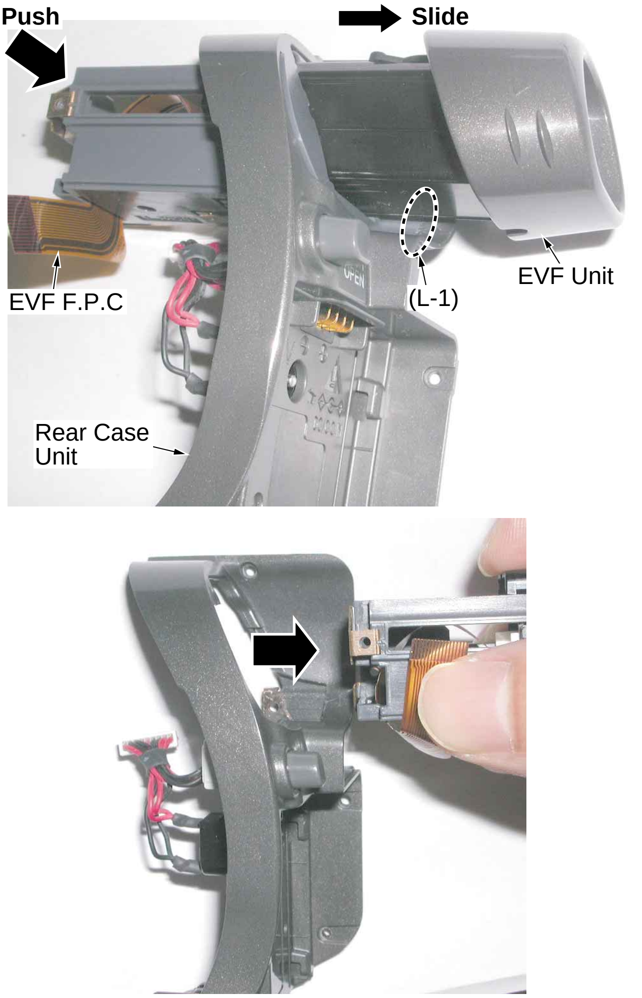


Fig. D15

17. **Installation of EVF Base Frame, EVF F.P.C.**

1) Pass the EVF F.P.C. through the EVF Base Frame hole.
2) Connect the EVF F.P.C. to Connector FP901.
3) Install the EVF Case Ass'y into EVF Base Frame so that the ribs are inserted into the slots of the EVF Base Frame.
4) After installing, confirm the EVF moves correctly.

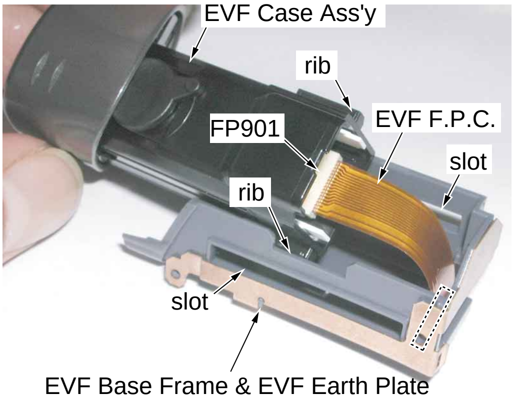

EVF Case Ass'y
rib
FP901
EVF F.P.C.
slot
rib
slot
EVF Base Frame & EVF Earth Plate

Fig. D16

18. **Removal of Eye Cap**

1) Remove the 2 Screws (533).
2) Remove the Eye Cap, then release the Locking Tab (L-2).

Handling cautions of EVF Lens Unit

Use extreme care when handling the EVF Lens Unit to avoid damage, dust, and spots (especially fingerprints, etc.)

Installation of EVF Lens Unit, Eye Sight Lever

1) Install the Eye Sight Lever into the EVF Case in the direction shown.
2) Install the EVF Lens Unit fitting both ribs into the EVF.
3) After installing, confirm that the Eye Sight Lever and EVF Lens Unit work together correctly.

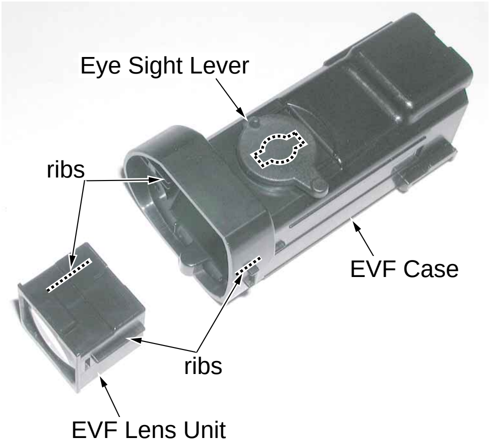

Eye Sight Lever
ribs
EVF Case
ribs
EVF Lens Unit

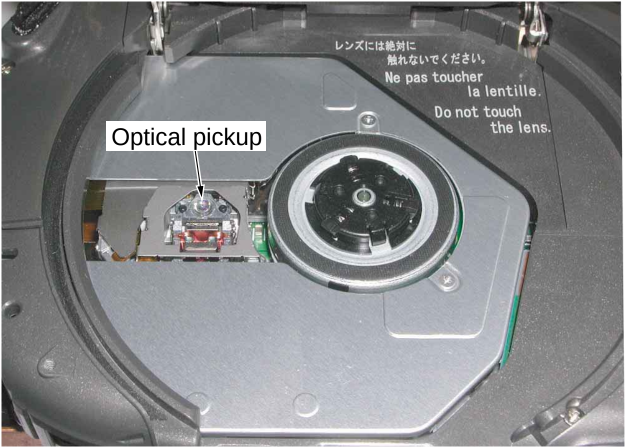
Fig. D17

Caution

Laser light striking the eye may cause your eyesight to be lost: For safety, be sure to remove any power supply (AC adaptor/charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M


Optical pickup
レンズには絶対に触れないでください。
Ne pas toucher la lentille.
Do not touch the lens.

MAIN P.C.B. LSEP8314A1

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS. FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING, PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

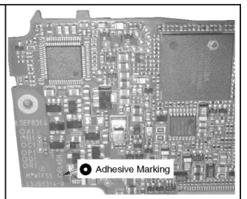
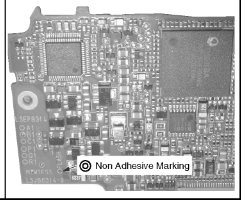
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

※1
IC6001 replacement note:

Two types of IC6001 (FLASH or MASK) are used on a running change basis, however MASK TYPE of IC6001 is supplied only as a replacement part.

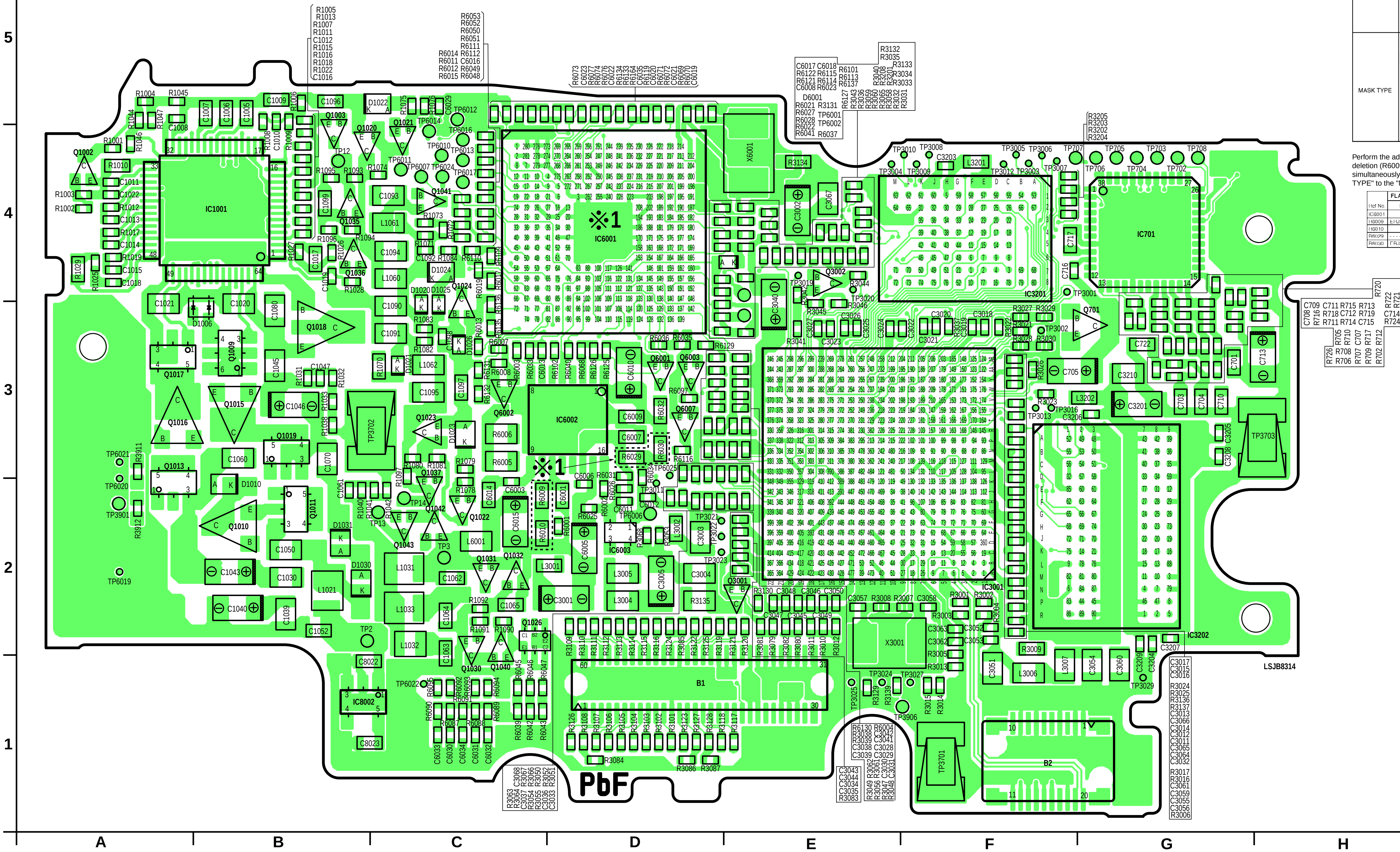
Types of IC6001

FLASH TYPE	 Adhesive Marking
MASK TYPE	 Non Adhesive Marking

Perform the addtion (R6010 and R6029) and also deletion (R6009 and R6030) of the following part simultaneously, when exchanging from the "FLASH TYPE" to the "MASK TYPE" of IC6001.

	FLASH TYPE	MASK TYPE	
Ref No.	Part No.	Part No.	Part Name
IC6001		C2DBLK000122	IC
R6009	ERJ3GEY0R00V		Resistor
R6010		ERJ3GEY0R00V	Resistor
R6029	- - - - - - - - - -	ERJ3GEY0R00V	Resistor
R6030	ERJ3GEY0R00V	- - - - - - - - - -	Resistor

(COMPONENT SIDE)



5
4
3
2
1
A
B
C
D
E
F
G
H
IC1001
IC6001
※1
IC6002
IC6003
IC3001
IC3201
IC3202
IC701
IC8002
X6001
X3001
B1
B2
TP3701
TP3702
TP3703
PbF
LSJB8314

MAIN P.C.B.
LSEP8314A1
VDR-D100PL/VDR-D200PL

MAIN P.C.B. LSEP8314A1

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN
FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH
SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

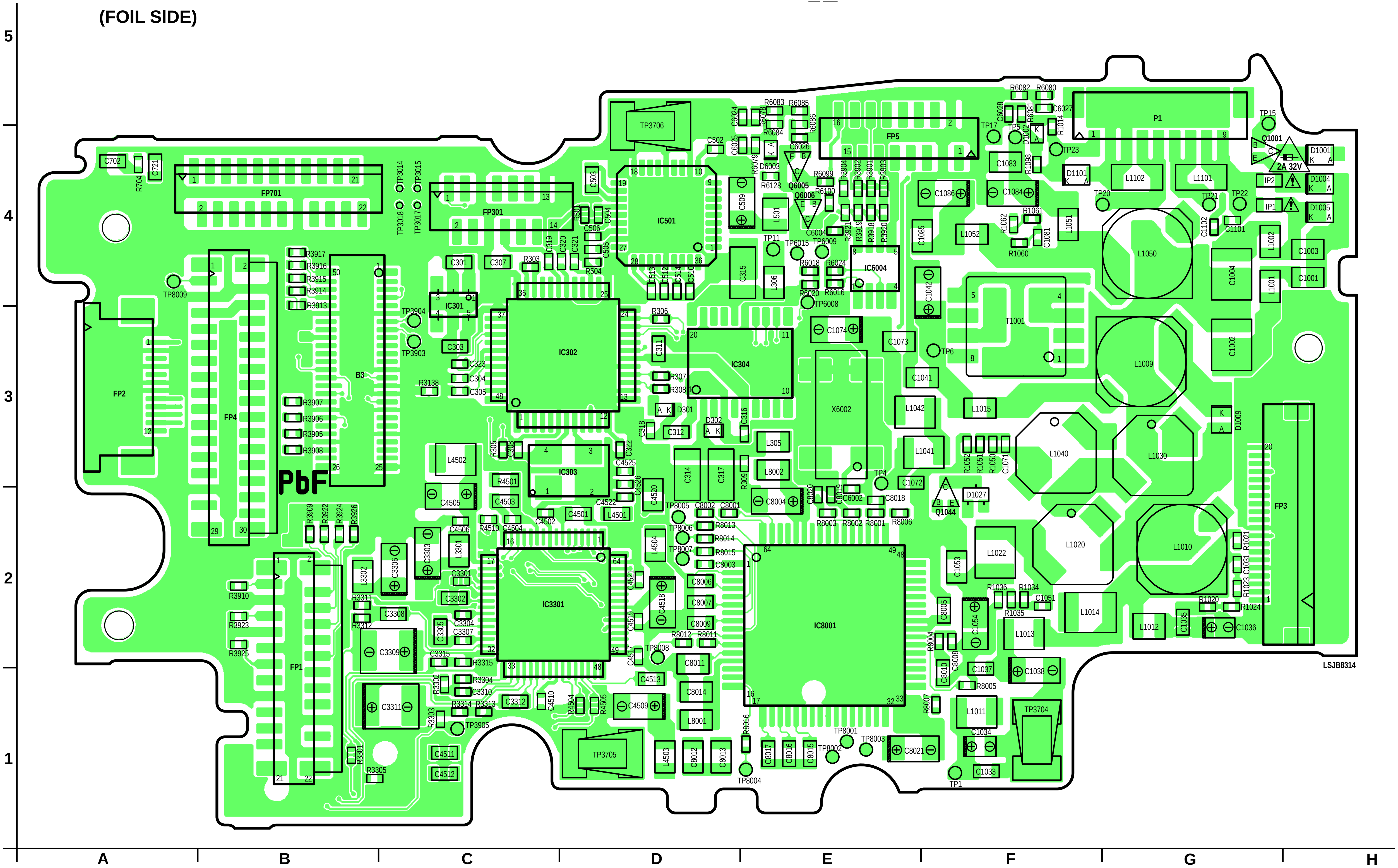
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

2A 32V

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

(FOIL SIDE)



5
4
3
2
1
A
B
C
D
E
F
G
H
C702
R704
C721
FP701
FP301
TP3014
TP3015
TP3018
TP3017
TP8009
FP2
FP4
B3
PbF
R3917
R3916
R3915
R3914
R3913
R3907
R3906
R3905
R3908
R3909
R3922
R3924
R3926
R3910
R3923
R3925
FP1
R3301
R3305
C301
C307
R303
IC301
TP3904
TP3903
C303
C323
C304
C305
R3138
IC302
C319
C320
C321
R501
C503
C504
C506
C505
R504
IC501
C513
C512
C514
C510
R306
C311
R307
R308
D301
D302
C312
C318
C322
C4525
C4526
C4522
IC303
L4502
R305
C308
R4501
C4505
C4503
C4506
R4510
C4504
C4502
C4501
L4501
C4520
C3303
C3306
L3302
L3301
C3301
C3302
R3311
R3312
C3308
C3304
C3307
C3305
C3309
C3315
R3315
R3304
C3310
R3302
C3311
R3314
R3313
C3312
R3303
TP3905
C4511
C4512
IC3301
C4521
C4518
C4519
C4517
C4510
R4504
R4505
C4509
C4513
TP3705
TP3706
L4503
L4504
C502
C6024
C6025
R6083
R6085
R6084
R6086
R6079
C6026
D6003
R6128
Q6005
Q6006
R6099
R6100
C6004
C509
L501
C315
L306
TP11
TP6015
TP6009
R6018
R6024
R6020
R6016
TP6008
IC6004
FP5
R3904
R3902
R3901
R3903
R3921
R3919
R3918
R3920
IC304
C316
L305
L8002
R309
C314
C317
TP8005
C8002
C8001
TP8006
R8013
R8014
R8015
TP8007
C8003
C8006
C8007
C8009
R8012
R8011
TP8008
C8011
C8014
C8001
L8001
C8012
C8013
R8016
TP8004
C8017
C8016
C8015
TP8002
TP8001
TP8003
C8021
IC8001
C8004
C8020
C8019
C6002
C8018
R8003
R8002
R8001
R8006
X6002
TP4
C1072
Q1044
D1027
C1074
C1073
TP6
C1041
L1042
L1041
C1085
C1042
C1086
C1084
C1083
L1052
R1062
R1061
R1060
C1081
L1051
T1001
L1015
R1052
R1051
R1050
C1071
L1040
L1030
L1020
L1010
L1022
C1053
C8005
C1054
R1036
R1034
R1035
C1051
L1013
L1014
L1012
C1035
C1036
R1020
R1024
R1021
C1031
R1023
R8004
C8010
C8008
C1037
C1038
R8005
R8007
L1011
C1034
TP3704
C1033
TP1
R6082
R6080
C6028
R6081
C6027
R1014
TP17
TP5
D1002
TP23
R1098
P1
L1102
L1101
D1101
TP20
TP21
TP22
C1102
C1101
L1050
C1004
L1002
C1003
L1001
C1001
L1009
C1002
D1009
FP3
TP15
Q1001
2A 32V
D1001
IP2
D1004
IP1
D1005
LSJB8314

Parts Location

MAIN P.C.B.

Integrated Circuits

IC301	C-4	F
IC302	D-3	F
IC303	D-3	F
IC304	D-3	F
IC501	D-4	F
IC701	G-4	C
IC1001	B-4	C
IC3001	F-2	C
IC3201	F-4	C
IC3202	G-2	C
IC3301	C-2	F
IC6001	D-4	C
IC6002	D-3	C
IC6003	D-2	C
IC6004	E-4	F
IC8001	E-2	F
IC8002	B-1	C

Transisters

Q701	G-3	C
Q1001	G-4	F
Q1002	A-4	C
Q1003	B-5	C
Q1009	B-3	C
Q1010	B-2	C
Q1011	B-2	C
Q1013	A-3	C
Q1015	B-3	C
Q1016	A-3	C
Q1017	A-3	C
Q1018	B-3	C
Q1019	B-3	C
Q1020	B-4	C
Q1021	C-4	C
Q1022	C-2	C
Q1023	C-3	C
Q1024	C-4	C
Q1026	C-2	C
Q1030	C-1	C
Q1031	C-2	C
Q1032	C-2	C
Q1035	B-4	C
Q1036	B-4	C
Q1037	C-2	C
Q1040	C-1	C
Q1041	C-4	C
Q1042	C-2	C
Q1043	C-2	C
Q1044	F-2	F
Q3001	E-2	C
Q3002	E-4	C
Q6001	D-3	C
Q6002	C-3	C
Q6003	D-3	C
Q6005	E-4	F
Q6006	E-4	F

Connectors

B1	D-1	C
B2	F-1	C
B3	B-3	F
FP1	B-2	F
FP2	A-3	F
FP3	G-2	F
FP4	B-3	F
FP5	E-4	F
FP301	C-4	F
FP701	B-4	F
P1	G-5	F

Fuses

IP1	G-4	F
IP2	G-4	F

Diodes

D301	D-3	F
D302	D-3	F
D1001	H-4	F
D1002	F-4	F
D1006	B-3	C
D1009	G-3	F
D1010	B-2	C
D1020	C-4	C
D1021	C-3	C
D1022	C-5	C
D1023	C-3	C
D1024	C-4	C
D1025	C-4	C
D1026	C-3	C
D1027	F-2	F
D1101	F-4	F
D6001	E-4	C
D6003	E-4	F

Transformer

T1001	F-3	F

Crystal Oscillators

X3001	E-2	C
X6001	E-4	C
X6002	E-3	F

Coils

L305	E-3	F
L306	E-4	F
L501	E-4	F
L1001	G-4	F
L1002	G-4	F
L1009	G-3	F
L1010	G-2	F
L1011	F-1	F
L1012	G-2	F
L1013	F-2	F
L1014	F-2	F
L1015	F-3	F
L1020	F-2	F
L1021	B-2	C
L1022	F-2	F
L1030	G-3	F
L1031	C-2	C
L1032	C-2	C
L1033	C-2	C
L1040	F-3	F
L1041	E-3	F
L1042	E-3	F
L1050	G-4	F
L1051	F-4	F
L1052	F-4	F
L1060	C-4	C
L1061	C-4	C
L1062	C-3	C
L1101	G-4	F
L1102	G-4	F
L3001	C-2	C
L3002	D-2	C
L3004	D-2	C
L3005	D-2	C
L3006	F-1	C
L3007	F-1	C
L3201	F-4	C
L3202	G-3	C
L3301	C-2	F
L3302	B-2	F
L4501	D-2	F
L4502	C-3	F
L4503	D-1	F
L4504	D-2	F
L6001	C-2	C
L8001	D-1	F

Capacitors

C301	C-4	F
C303	C-3	F
C304	C-3	F
C305	C-3	F
C307	C-4	F
C308	C-3	F
C311	D-3	F
C312	D-3	F
C314	D-3	F
C315	D-4	F
C316	E-3	F
C317	D-3	F
C318	D-3	F
C319	C-4	F
C502	D-4	F
C503	D-4	F
C504	D-4	F
C505	D-4	F
C506	D-4	F
C509	D-4	F
C510	D-4	F
C512	D-4	F
C513	D-4	F
C514	D-4	F
C701	G-3	C
C702	A-4	C
C703	G-3	C
C704	G-3	C
C705	F-3	C
C708	H-3	C
C709	H-3	C
C710	G-3	C
C711	H-3	C
C712	H-3	C
C713	H-3	C
C714	H-3	C
C715	H-3	C
C716	F-4	C
C717	F-4	C
C718	H-4	C
C720	H-3	C
C721	A-4	F
C722	G-3	C
C1001	H-4	F
C1002	G-3	F
C1003	H-4	F
C1004	G-4	F
C1005	B-5	C
C1006	B-5	C
C1007	B-5	C
C1008	A-4	C
C1009	B-5	C
C1010	B-4	C
C1011	A-4	C
C1012	B-5	C
C1013	A-4	C
C1014	A-4	C
C1015	A-4	C
C1016	B-5	C
C1018	A-4	C
C1019	B-4	C
C1020	B-3	C
C1021	A-3	C
C1022	A-4	C
C1030	B-2	C
C1031	G-2	F
C1033	F-1	F
C1035	G-2	F
C1037	F-1	F
C1038	F-1	F
C1039	B-2	C
C1040	B-2	C
C1045	B-3	C
C1047	B-3	C
C1050	B-2	C
C1051	F-2	F
C1052	B-2	C
C1053	F-2	F
C1060	B-3	C
C1061	B-2	C
C1062	C-2	C
C1063	C-2	C
C1064	C-2	C
C1065	C-2	C
C1070	B-3	C
C1071	F-3	F
C1072	E-3	F
C1073	E-3	F
C1074	E-3	F
C1080	B-3	C
C1081	F-4	F
C1085	F-4	F
C1086	F-4	F
C1090	C-3	C
C1091	C-3	C
C1092	C-4	C
C1093	C-4	C
C1094	C-4	C
C1095	C-3	C
C1096	B-5	C
C1097	C-3	C
C1098	C-3	C
C1099	B-4	C
C1101	G-4	F
C1102	G-4	F
C3001	D-2	C
C3002	E-4	C
C3003	D-2	C
C3004	D-2	C
C3005	D-2	C
C3011	G-1	C
C3012	G-1	C
C3013	G-1	C
C3014	G-1	C
C3015	G-1	C
C3016	G-1	C
C3017	G-1	C
C3018	F-3	C
C3019	F-3	C
C3020	F-3	C
C3021	F-3	C
C3022	F-3	C
C3023	E-3	C
C3024	E-3	C
C3025	E-3	C
C3026	E-3	C
C3027	E-3	C
C3028	E-1	C
C3029	E-1	C
C3030	E-1	C
C3031	E-1	C
C3032	G-1	C
C3033	D-1	C
C3034	E-1	C
C3035	E-1	C
C3036	C-1	C
C3037	C-1	C
C3038	E-1	C
C3039	E-1	C
C3040	E-3	C
C3041	E-1	C
C3042	E-1	C
C3043	E-1	C
C3044	E-1	C
C3045	E-2	C
C3046	E-2	C
C3047	E-2	C
C3048	E-2	C
C3049	E-2	C
C3050	E-2	C
C3051	F-1	C
C3052	F-2	C
C3053	F-2	C
C3054	G-1	C
C3055	G-1	C
C3056	G-1	C
C3057	E-2	C
C3058	F-2	C
C3059	G-1	C
C3060	G-1	C
C3061	G-1	C
C3062	F-2	C
C3063	F-2	C
C3064	G-1	C
C3065	G-1	C
C3066	G-1	C
C3067	E-4	C
C3068	C-1	C
C3201	G-3	C
C3203	F-4	C
C3204	G-1	C
C3205	G-3	C
C3206	F-3	C
C3207	G-2	C
C3208	G-3	C
C3209	G-1	C
C3210	G-3	C
C3301	C-2	F
C3302	C-2	F
C3303	C-2	F
C3304	C-2	F
C3305	C-2	F
C3306	C-2	F
C3307	C-2	F
C3308	C-2	F
C3309	C-2	F
C3310	C-1	F
C3311	C-1	F
C3312	C-1	F
C3315	C-2	F
C4502	C-2	F
C4504	C-2	F
C4505	C-2	F
C4509	D-1	F
C4510	C-1	F
C4511	C-1	F
C4512	C-1	F
C4513	D-1	F
C4518	D-2	F
C4519	D-2	F
C4520	D-2	F
C6001	D-2	C
C6004	E-4	F
C6005	D-2	C
C6006	D-2	C
C6007	D-3	C
C6008	E-5	C
C6009	D-3	C
C6010	D-3	C
C6012	D-2	C
C6013	C-3	C
C6014	C-2	C
C6015	C-2	C
C6017	E-5	C
C6018	E-5	C
C6019	D-5	C
C6020	D-5	C
C6021	D-5	C
C6022	D-5	C
C6025	D-4	F
C6026	E-4	F
C6027	F-5	F
C6029	C-5	C
C6030	C-1	C
C6031	C-1	C
C6032	C-1	C
C6033	C-1	C
C6035	D-5	C
C8001	D-2	F
C8002	D-2	F
C8003	D-2	F
C8004	E-2	F
C8005	F-2	F
C8006	D-2	F
C8007	D-2	F
C8008	F-2	F
C8009	D-2	F
C8010	F-1	F
C8011	D-2	F
C8012	D-1	F
C8013	D-1	F
C8014	D-1	F
C8015	E-1	F
C8016	E-1	F
C8017	E-1	F
C8018	E-2	F
C8019	E-2	F
C8020	E-2	F
C8022	B-1	C
C8023	B-1	C

Resistors

R305	C-3	F
R306	D-3	F
R307	D-3	F
R308	D-3	F
R309	E-3	F
R501	D-4	F
R504	D-4	F
R702	H-3	C
R704	A-4	F
R705	H-3	C
R706	H-3	C
R707	H-3	C
R708	H-3	C
R709	H-3	C
R710	H-3	C
R711	H-3	C
R712	H-3	C
R713	H-3	C
R714	H-3	C
R715	H-3	C
R716	H-3	C
R718	H-3	C
R719	H-3	C
R721	H-3	C
R722	H-3	C
R723	H-3	C
R724	H-3	C
R726	H-3	C
R1001	A-4	C
R1002	A-4	C
R1003	A-4	C
R1004	A-5	C
R1005	B-5	C
R1006	B-5	C
R1007	B-5	C
R1008	B-4	C
R1009	B-4	C
R1010	A-4	C
R1011	B-5	C
R1012	A-4	C
R1013	B-5	C
R1014	F-4	F
R1015	B-5	C
R1016	B-5	C
R1017	A-4	C
R1018	B-5	C
R1019	A-4	C
R1020	G-2	F
R1021	G-2	F
R1022	B-5	C
R1023	G-2	F
R1024	G-2	F
R1025	A-4	C
R1026	B-4	C
R1027	B-4	C
R1028	B-4	C
R1029	A-4	C
R1031	B-3	C
R1032	B-3	C
R1033	B-3	C
R1034	F-2	F
R1035	F-2	F
R1036	F-2	F
R1038	B-3	C
R1040	B-2	C
R1041	C-2	C
R1042	C-2	C
R1044	A-4	C
R1045	A-5	C
R1046	A-4	C
R1050	F-3	F
R1051	F-3	F
R1052	F-3	F
R1060	F-4	F
R1070	C-3	C
R1071	C-4	C
R1072	C-4	C
R1073	C-4	C
R1074	C-4	C
R1075	C-5	C
R1076	C-5	C
R1078	C-2	C
R1079	C-3	C
R1080	C-3	C
R1081	C-3	C
R1082	C-3	C
R1083	C-3	C
R1084	C-4	C
R1091	C-2	C
R1092	C-2	C
R1094	B-4	C
R1095	B-4	C
R1096	B-4	C
R1098	F-4	F
R3001	F-2	C
R3002	F-2	C
R3005	F-2	C
R3006	G-1	C
R3008	E-2	C
R3009	F-2	C
R3010	E-2	C
R3011	E-2	C
R3012	E-2	C
R3013	F-1	C
R3014	F-1	C
R3015	F-1	C
R3016	G-1	C
R3017	G-1	C
R3022	F-3	C
R3023	F-3	C
R3024	G-1	C
R3026	F-3	C
R3027	F-3	C
R3028	F-3	C
R3029	F-3	C
R3030	F-3	C
R3031	E-5	C
R3032	E-5	C
R3033	E-5	C
R3034	E-5	C
R3035	E-5	C
R3036	E-5	C
R3037	F-3	C
R3038	E-1	C
R3039	E-1	C
R3040	E-5	C
R3041	E-3	C
R3042	E-3	C
R3043	E-5	C
R3044	E-4	C
R3045	E-3	C
R3046	E-3	C
R3047	E-1	C
R3048	E-1	C
R3049	E-1	C
R3050	C-1	C
R3051	D-1	C
R3052	C-1	C
R3053	D-2	C
R3054	C-1	C
R3055	C-1	C
R3056	E-1	C
R3058	E-5	C
R3059	E-5	C
R3060	E-5	C
R3061	E-1	C
R3062	E-1	C
R3063	C-1	C
R3064	C-1	C
R3065	E-5	C
R3066	C-1	C
R3067	C-1	C
R3068	D-2	C
R3079	E-2	C
R3080	E-2	C
R3081	E-2	C
R3082	E-2	C
R3083	E-1	C
R3084	D-1	C
R3085	D-2	C
R3086	D-1	C
R3087	D-1	C
R3101	D-1	C
R3102	D-1	C
R3103	D-1	C
R3104	D-1	C
R3105	D-1	C
R3106	D-1	C
R3107	D-1	C
R3108	D-1	C
R3109	D-2	C
R3110	D-2	C
R3111	D-2	C
R3112	D-2	C
R3113	D-2	C
R3114	D-2	C
R3115	D-2	C
R3116	D-2	C
R3117	E-1	C
R3118	D-1	C
R3119	D-2	C
R3120	E-2	C
R3121	E-2	C
R3122	D-2	C
R3123	D-1	C
R3124	D-2	C
R3125	D-2	C
R3126	D-1	C
R3127	D-1	C
R3128	D-1	C
R3129	E-1	C
R3130	E-2	C
R3131	E-5	C
R3132	E-5	C
R3133	E-5	C
R3134	E-4	C
R3135	D-2	C
R3137	G-1	C
R3138	C-3	F
R3139	E-1	C
R3201	E-5	C
R3202	G-4	C
R3203	G-4	C
R3204	G-4	C
R3205	G-5	C
R3301	B-1	F
R3302	C-1	F
R3303	C-1	F
R3304	C-1	F
R3312	B-2	F
R3314	C-1	F
R3315	C-2	F
R3909	B-2	F
R3910	B-2	F
R3911	A-3	C
R3912	A-2	C
R3913	B-4	F
R3914	B-4	F
R3915	B-4	F
R3916	B-4	F
R3917	B-4	F
R3918	E-4	F
R3919	E-4	F
R3920	E-4	F
R3921	E-4	F
R4501	C-3	F
R4504	D-1	F
R4505	D-1	F
R4510	C-2	F
R6001	D-2	C
R6002	D-3	C
R6003	C-3	C
R6004	E-1	C
R6005	C-3	C
R6006	C-3	C
R6007	C-3	C
R6008	C-3	C
R6010	C-2	C
R6013	C-3	C
R6014	C-5	C
R6015	C-5	C
R6016	E-4	F
R6017	C-4	C
R6018	E-4	F
R6019	C-4	C
R6020	E-4	F
R6021	E-5	C
R6022	E-5	C
R6023	E-5	C
R6025	D-2	C
R6027	E-5	C
R6028	E-5	C
R6029	D-3	C
R6031	D-3	C
R6032	D-3	C
R6033	C-3	C
R6034	D-3	C
R6035	D-3	C
R6036	D-3	C
R6037	E-4	C
R6039	C-1	C
R6040	D-3	C
R6041	E-4	C
R6042	C-1	C
R6043	C-1	C
R6045	C-1	C
R6046	C-1	C
R6047	C-1	C
R6048	C-5	C
R6049	C-5	C
R6050	C-5	C
R6051	C-5	C
R6053	C-5	C
R6068	D-3	C
R6069	D-5	C
R6070	D-5	C
R6071	D-5	C
R6072	D-5	C
R6073	D-5	C
R6074	D-5	C
R6076	D-5	C
R6077	D-5	C
R6078	E-5	F
R6079	E-4	F
R6080	F-5	F
R6081	F-5	F
R6082	F-5	F
R6083	E-5	F
R6084	E-4	F
R6085	E-5	F
R6086	E-4	F
R6087	C-1	C
R6088	C-1	C
R6089	C-1	C
R6090	C-1	C
R6091	C-1	C
R6092	C-1	C
R6093	C-1	C
R6094	C-1	C
R6095	C-1	C
R6097	D-3	C
R6099	E-4	F
R6100	E-4	F
R6101	E-5	C
R6102	D-3	C
R6109	C-4	C
R6110	C-4	C
R6111	C-5	C
R6112	C-5	C
R6113	E-5	C
R6114	E-5	C
R6115	E-5	C
R6119	D-5	C
R6121	E-5	C
R6122	E-5	C
R6125	D-3	C
R6127	E-5	C
R6128	E-4	F
R6130	E-1	C
R6131	C-3	C
R6134	D-5	C
R6137	E-5	C
R8001	E-2	F
R8002	E-2	F
R8003	E-2	F
R8004	F-2	F
R8005	F-1	F
R8006	E-2	F
R8007	F-1	F
R8011	D-2	F
R8012	D-2	F
R8013	D-2	F
R8014	D-2	F
R8015	D-2	F
R8016	E-1	F